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This study examines the environment within the Naval Postgraduate School's Small Purchase Branch. The intent of the study is to analyze the procurement process, ascertain the factors which contribute to the overall Procurement Administrative Lead Time (PALT), and make recommendations that offer alternate solutions to problems associated with PALT. The primary areas studied include the legislative environment, work environment, training, staffing, management, and automation. The thrust of the study is to improve the efficiency and effectiveness of the Purchase Branch. Specific conclusions regarding the current state of the NPS Small Purchase Branch are made, along with recommendations that management may use to improve the branch in the future. This study also recommends areas for future study that may lead to increased productivity in any small purchase activity.

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# An Analysis of the Procurement Administrative Lead Time (PALT) for the Procurement Process at the Naval Postgraduate School

by

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## ABSTRACT

This study examines the environment within the Naval Postgraduate School's Small Purchase Branch. The intent of the study is to analyze the procurement process, ascertain the factors which contribute to the overall Procurement Administrative Lead Time (PALT), and make recommendations that offer alternate solutions to problems associated with PALT. The primary areas studied include the legislative environment, work environment, training, staffing, management, and automation. The thrust of the study is to improve the efficiency and effectiveness of the Purchase Branch. Specific conclusions regarding the current state of the NPS Small Purchase Branch are made, along with recommendations that management may use to improve the branch in the future. This study also recommends areas for future study that may lead to increased productivity in any small purchase activity.

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# I. INTRODUCTION

## A. FOCUS OF THIS STUDY

The procurement of supplies and nonpersonal services for under $25,000 is accomplished throughout the Navy Field Contracting System (NFCS) by over 900 small purchase activities. This study analyzes the procurement process at the Naval Postgraduate School (NPS) in Monterey, California. Purchase authority is limited to $25,000, except for items purchased from a mandatory Federal Supply Schedule (FSS). The primary focus is on the purchasing section of the Supply Department which is headed by a GS-8 Supervisor. The Supervisor's span of control covers a total of five buyers, one purchasing clerk, and two data entry and distribution clerks. The study is limited to evaluating NPS' Procurement Administrative Lead Time (PALT). However, comparative data from other purchasing activities of similar size and scope are contrasted. Purchase transactions in excess of $25,000 are forwarded to Naval Supply Center, Oakland, California for solicitation and award. The PALT for these transactions is analyzed and compared to the standards established by the Naval Supply Systems Command (NAVSUP).

## B. OBJECTIVES

The primary thrust of this study is to identify factors which are internal and external to the purchasing

organization that contribute to the amount of time necessary to process procurement actions received from the various NPS departments and tenant commands. Analysis of each transaction begins when the requisition is generated by the requesting customer. PALT begins when the requisition is received and date stamped by the Issue Control Group and finishes when the purchase order is awarded to a vendor. This analysis results in recommendations for correcting problems and identifying meaningful steps for implementation of new procedures for streamlining the operation. Additionally, the management information provided by this study will be useful in evaluating similar Department of Defense (DoD) small purchase activities.

## C. RESEARCH QUESTIONS

Based on the objective cited above, the following primary research question is addressed in this study: How can the procurement process at NPS be improved to reduced PALT? In support of the primary research question, the following subsidiary questions are addressed:

1. What are the different types of open purchase transactions being processed by the NPS purchase branch and how do they affect PALT?
2. Is there a better method of processing open purchase transactions to improve efficiency?
3. Do NPS departments and tenant commands experience different Procurement Administrative Lead Times (PALT) on their requisitions?
4. How does the priority assigned on the requisition affect PALT?

5. What, if any, has been the effect of recent changes to Department of Defense (DoD) procurement regulations on the PALT at NPS over the last two years?

6. What are some of the possible solutions for reducing PALT at NPS which will provide for a more responsive and efficient procurement system.

## D. RESEARCH METHODOLOGY

The information presented in this research effort was obtained through personal interviews of key individuals within the NPS purchasing branch and other departments and tenant commands that interface with the NPS Supply Department. Additionally, interviews were obtained from purchasing personnel at the Naval Supply Center, Oakland and NAS Moffett Field, Sunnyvale, California. For a comparison with the private sector, an interview was obtained from the Head of Purchasing for ARGOSystems, Inc. in Sunnyvale, California. Other types of data utilized in this study were local documents, reports and activity records that were provided by Supply Department personnel.

An extensive review of purchasing directives and policies was conducted in conjunction with the author's attendance at a week long Defense Small Purchase training course. The course was sponsored by the Naval Supply Systems Command (NAVSUP) and was presented by NSC Oakland personnel to NPS and tenant command personnel.

The literature utilized in this research effort was obtained from multiple sources, including the Defense Logistics Information Exchange (DLSIE), current Federal and

DoD regulations, supplementary directives, previous theses, and a review of current publications and periodicals relevant to the field of Federal procurement and small purchase.

## E. SCOPE OF THE STUDY

This study is limited to requisitions that are submitted to the NPS Supply Department for open purchase processing and does not include Standard Stock Items, Ready Supply Store Issues, General Schedule (GS) requirements or any other internal government purchases (i.e., Federal Prison Industries or the Blind and Other Severely Handicapped Industries). The study examines all small purchase transactions (0-$25,000) and large purchase transactions (over $25,000). Requisitions over $25,000 are sent to NSC Oakland for processing and award. The small purchase review includes Imprest Fund buys, purchases made utilizing the Blanket Purchase Agreement method, Purchase Orders and Delivery Orders.

This study also analyzes the regulatory changes that have occurred over the last two years and how these changes have affected the efficiency of the procurement process at NPS. A statistical analysis of procurement data (i.e., by total number of procurement actions, by customer, by type of purchase transaction and by dollar value) was performed to analyze growth trends.

## F. LIMITATIONS

The Naval Postgraduate School purchase requirements are unique to this particular organization and environment due to the specific mission of the school. The majority of the open purchase buys are in support of internal research projects which include laboratory packages, student experiments, and thesis research. Additionally, DoD and other Federal Agencies are able to request and receive research projects. A composite of these types of purchases preclude direct comparisons of the NPS workload with activities having the same dollar authority.

## G. ASSUMPTIONS

Throughout this study, it is assumed that the reader is familiar with the Federal Acquisition process and the limitations and idiosyncrasies of small purchase. It is further assumed that the reader is familiar with basic Naval terminology and with basic contracting and acquisition terminology. If the reader desires, references for Small Purchase rules and regulations may be obtained in the Federal Acquisition Regulations (FAR), Defense Supplement to Federal Acquisition Regulation (DFAR) and the Field Purchasing Guide (NAVSUP P-560).

## H. DEFINITIONS

The following definitions will aid the reader in comprehending the basic issues presented by this study:

1. Small Purchase: means an acquisition of supplies, nonpersonal services, and construction in the amount of $25,000 or less. [Refs. 1, 2]

2. Contract: means a mutually binding legal relationship obligating the seller to furnish the supplies or services (including construction) and the buyer to pay for them. It includes all types of commitments that obligate the Government to an expenditure of appropriate funds and that, except as otherwise authorized, are in writing. In addition to bilateral instruments, contracts include (but are not limited to) awards and notices of awards; job orders or task letters issued under basic ordering agreements; letter contracts; orders such as purchase orders, under which the contract becomes effective by written acceptance or performance; and bilateral contract modifications. [Ref. 3]

3. Contracting: means purchasing, renting, leasing, or otherwise obtaining supplies or services from nonfederal sources. Contracting includes description (but not determination) of supplies and services required, selection and solicitation of sources, preparation and award of contracts, and all phases of contract administration. It does not include making grants or cooperative agreements. [Ref. 3]

4. Vendor/Supplier/Contractor: in the context of this research report the terms Vendor, Supplier, and Contractor will be used interchangeably to indicate parties that provide supplies and services to the Government.

5. GS-1102: These are civil service personnel who are tasked with acquisition for items totalling more than $25,000 and are referred to as Contract and Procurement Specialists. The average grade level of these personnel in the Federal Government is between a GS-9 and a GS-15. Additional duties include general administration of contracts and special technical assistance in the review of contract requirements. [Ref. 4]

6. GS-1105: GS-1105 personnel are termed Purchasing Agents. Their specific job tasking is in the small purchase field and they comprise the vast majority of personnel performing the small purchase function within the Federal Government. The average grade level for the 1105 series is between GS-5 and GS-8. [Ref. 4]

7. GS-1106: There are two categories of GS-1106 personnel; Procurement Clerks and Procurement Technical Support. In general, Procurement Clerks are utilized in the small purchase function whereas Procurement Technical Support personnel are utilized in the contracting functional area. The average grade level for the 1106 series is between GS-3 and GS-5. [Ref. 4]

## I. SUMMARY OF THE FINDINGS

The research effort revealed a number of deficiencies within the Purchasing Branch which are partially responsible for an increase to the PALT over the last two years. The author's findings support the conclusion that there is a tremendous duplication of effort between buyers which could be eliminated by development of an automated data base. The data base would be available to each buyer via a desk top computer and would provide the buyer with accurate historical information on prices, terms, schedule and available vendors.

Additional findings reveal that the work environment requires a number of physical changes be made in order to promote better work relations between buyers and the supervisor. This includes more privacy, installation of a better telephone system and providing additional work space.

Other areas that are addressed in this study are the lack of training provided for the buyers, poor internal controls and work flow, and an inadequate division of labor. These problems coupled with a nonexistent Customer Service Policy requires that management take immediate steps to correct a possibly unsatisfactory situation.

One factor that is beyond the control of the Supply Officer is the number of legislative changes that have taken place over the last two years. The situation for the Supply Officer becomes a revolving door issue. He must strive to make timely awards on the one hand and follow complex and ever-changing regulations on the other. However, as long as Congress continues to enact changes to the procurement regulations, the Supply Officer is legally bound to comply.

Each of the above deficiencies are addressed with recommendations provided for implementing corrections.

## J. ORGANIZATION OF THE STUDY

This thesis is organized to give the reader a comprehensive overview of the purchasing environment. Chapter II provides an internal review of the procurement process at NPS and a breakdown of the number of transactions by procurement type, by dollar value, and by average days to make the award. The period covered is the last two years with trends identified and statistically summarized.

Chapter III identifies the latest legislative changes to the procurement regulations and the impact they have had on the procurement process at NPS. Chapter IV discusses the problems identified within the Purchasing Branch at NPS relative to the factors that affect the PALT and overall efficiency of the Division.

Chapter V identifies and discusses issues and problems associated with improving the efficiency of the procurement

process. Additionally, a discussion of factors that are relevant to the successful implementation of change are identified and analyzed (i.e., costs, funding, timeliness, ADP technology, and future growth). Chapter VI identifies the author's conclusions and recommendations for methods to reduce PALT and provide for a more efficient procurement process.

## II. THE PROCUREMENT PROCESS

### A. INTRODUCTION

This chapter provides the reader with an insight into the "guts" of the purchasing process at the Naval Postgraduate School. However, one thing must be made clear from the outset, NPS is an echelon II command that reports directly to the Vice Chief of Naval Operations. It is not part of the operational forces. As vital as the mission may seem, the school's priorities must often take a backseat to those of the operating forces.

The Uniform Material Movement and Issue System (UMMIPS), which utilizes a matrix to assign priorities for requisitions, is broken down into Force/Activity Designators (FAD) I through V and Urgency of Need Designators (UND) A, B and C. FAD I has the highest priorities and is used only for Strategic Defense forces while FAD V is assigned the lowest priorities in each Urgency of Need Designator. NPS is currently assigned FAD V and is restricted to using priorities 08, 10 and 15 (refer to Figure 2.1). The only authorized exceptions to the above priorities are for medical or disaster supplies or emergency supplies required immediately for controlling civil disturbances, disorders or riots. Otherwise, utilization of the UMMIPS system is

mandatory. Just how the different priorities affect the PALT, are analyzed later in the study.

For the remainder of this chapter the author identifies the types of funds available to the school and its departments as well as how these funds are managed. Then, a model is developed for tracing a requisition from its origin to the actual award to a vendor for a material or service. This is followed by a complete description of the various purchase methods available through a typical small purchase activity. Finally, the author provides a detailed breakdown of the number of buys by dollar value made by the NPS Purchase Branch with the resultant PALT.

| | UND: | A | B | C |
|---|---|---|---|---|
| FAD | I | 01 | 04 | 11 |
| | II | 02 | 05 | 12 |
| | III | 03 | 06 | 13 |
| | IV | 07 | 09 | 14 |
| | V | 08 | 10 | 15 |

Figure 2.1 UMMIPS System

## B. EDUCATION IS BIG BUSINESS

There are essentially two types of funds allocated to NPS on an annual basis. The first is used in direct support of the mission at NPS and is currently in excess of 32

million dollars for Fiscal Year 86. These Operating Target (OPTAR) funds are identified as Operations and Maintenance, Navy (O&M,N) dollars and are utilized primarily to purchase supplies and services as well as to provide for salaries, labor wages, informational programs, special projects, and funds to support the international student population.

Each department at NPS administers its own departmental budget and is responsible for submitting its annual budget request to the Superintendent. After each department is assigned an annual budget target, it is possible for them to receive augments to that budget upon request. The request can be made quarterly or as necessary.

The second type of funds available are for research. The school has over 14 million dollars available on an annual basis and any DoD sponsor, other Federal Agency, or private institution can transfer funds to NPS. These funds are in the form of reimbursables and the money is obligated and expended by the various departments for special research projects. The NPS Comptroller is responsible for summarizing each fund for the requesting activities and providing them with a report which allows them to monitor how much of their money was actually spent.

In addition to the NPS departments, there are several tenant activities (i.e., NEPRF, FNOC) that have OPTAR funds available for command support. In FY 85 over 1800 open purchase transactions were processed by the NPS Purchasing

Branch for these activities with a total obligational value in excess of $2.3 million.

The overall management of these two funds is the responsibility of the Comptroller who utilizes a realtime Integrated Disbursing and Accounting System (IDA) to process all obligations and expenditures. The Datamax computer which is located in the Comptroller's office is on a direct line with the Authorized Accounting Activity, more commonly known as the triple A, located at NSC Oakland. The Oakland office of the triple A has the primary responsibility for paying vendors' invoices for completed transactions as reported by the NPS Receipt Control Branch. The invoices are only paid when the vendor's original invoice matches the NPS Purchase order. There are many different players involved in the obligation, expenditure, and disbursement of government funds but with numerous checks, balances, and audits there are very few opportunities for fraud, waste or abuse.

C. INDIVIDUAL REQUISITION PROCESSING

The initial step in the requisitioning process for obtaining the supplies and services demanded by each department starts with a valid need or requirement. For simplicity, a model has been developed for a single line item transaction for non-standard material over $1,000 to demonstrate how an open purchase requisition is initiated at the department level. The model takes the reader through

all of the steps required before the requirement is actually transformed into an award to a particular vendor.

The types of documents submitted or the validity of the data codes entered on the documents are beyond the scope of this thesis and are not addressed.

In an effort to assist the Purchasing Branch, the following procedures must be adhered to by the individual responsible for initiating requests for non-standard material. First, an estimated price for the item must be included on the requisitioning document. This information may be obtained from previous requests for the same material, via catalogs, current market prices, manufacturer's price lists and/or technical knowledge of the product or service. If this information is not readily available, the requisitioner should contact the Purchasing Branch supervisor for assistance in obtaining the required information.

The next step is probably the most critical of all. The buyer must have an accurate and complete description of the product. Due to the buyer's limited technical background, listing all of the physical, functional, and other characteristics of the item are essential for the buyer to fulfill the requisitioner's requirement. If the request is for a non-personal service, a complete outline of the service the contractor is expected to perform aids the buyer in screening prospective contractors.

The last item of information that can be extremely helpful in assisting the buyer to make the award is the listing of a minimum of three available sources. By law, the buyer must screen three different sources for purchases over $1,000 and obtain the most competitive price available. This requirement assures the government that the award, when made, best satisfies the requisitioner's requirement and is the most responsible and responsive offer available.

Once the need for a particular requirement has been identified and described as above, the department chairman or a designated representative signs the requisition for approval and forwards the document to Issue Control. If the requisition cites a document number which requests obligation of research funds then the document must pass through Research Administration for approval before being forwarded to Issue Control. All requisitions received by the Issue Control Group are date stamped and are screened in accordance with the NAVSUP P-485 for proper preparation. It is at this time that the clock starts for recording PALT. However, before further processing can take place, Issue Control personnel must screen the item being requested for possible substitution by a standard stock item which may be available in the Federal Supply System. This procedure must be followed to comply with current NAVSUP directives. If the supply system is functioning properly, material that can be identified as having a National Stock Number (NSN) must

be obtained from the nearest Supply Center. The advantage of this method is that it requires less time for receipt of the material and reduces the amount of paperwork.

After the requisition is screened in Issue Control, it is forwarded to the Comptroller's office where the requisition is checked for adequate funding against the individual department's OPTAR. If funding is insufficient then the document is returned to the originating department. Providing sufficient funds are available, a copy of the requisition is removed for obligation purposes and the requisition is again date stamped and returned to Issue Control. At this point in time, Comptroller personnel enter the document number and amount in the computer to establish the obligation. There are a number of different circumstances, however, that can create changes to the original amount obligated. For example, a cancellation of the requisition or even a reduction in the quantity required can cause the obligated amount to change. It is essential that the Supply Department keep the Comptroller's office informed of any changes to the requisition after it is initially entered in the computer. This precludes having to make large financial adjustments when funds near expiration.

From Issue Control the requisition is passed to the Purchasing Branch Supervisor. All requisitions passing across the supervisor's desk are manually logged by date received, type of buy, document number, and buyer assigned.

Then the Purchasing Branch supervisor reviews the documents to ensure pertinent data are included and distributes them to individual buyers based on factors such as the requisition's priority, the type of material or service, the estimated dollar value, the customer, and the workload on each buyer's desk. Buyers are required to log-in all purchase requests as they are received and then award the contract to a commercial vendor after following appropriate regulations and procedures.

Subsequent to placing an order, a formal contractual document must be prepared and distributed. In the case of non-standard material in excess of $1,000, a DD Form 1155 Purchase Order is prepared. The buyer initiates preparation of the DD Form 1155 by complet-ing a purchase order worksheet which lists additional purchase award information. The buyer then forwards the documents along with the original requisition source document (DD Form 1348) to the data entry and distribution clerk for document preparation.

After preparation, the Purchase Order is signed by the responsible officer and returned to the clerk for further distribution. Copies are mailed to the vendor to provide hard copy support for the order. Additional copies are filed in Receipt Control, Issue Control, Purchasing, and the Comptroller. At this point in time the PALT clock stops.

## D. SMALL PURCHASE METHODS

Small Purchase procedures are designed to minimize administrative costs in relation to those costs associated with formal contracting procedures [Ref. 5]. At NPS there are over 11,000 small purchase transactions per year and the key to the most efficient processing of these transactions is the method utilized to make the award. The primary methods of open market purchases in order of preference are the Blanket Purchase Agreement (BPA), Imprest Fund (IF) purchase Order (PO), and Purchase Invoice (SF44). In consonance with the method of purchase is the dollar threshold for utilization of that method. For example, BPA is one of the easiest methods to use because it requires only a telephone call where the buyer contacts the vendor, obtains a price quote, and then places the order. Figure 2.2 presents the various relationships between dollar thresholds, extent of competition or advertising, and the purchase method available for each level. The small purchase methods previously identified along with the Delivery Order method will be briefly discussed in the following sections.

### 1. Blanket Purchase Agreement

The Blanket Purchase Agreement (BPA) is a simplified method that essentially establishes a "charge account" between various small business sources of supply and the local government activity (i.e., NPS, Fort Ord, DLI). The reason this type of arrangement is most preferred is because

| Dollar Value of Procurement | Extent of Competition and/or Advertising | Purchase Methods Available |
|---|---|---|
| $0-$500 | no competition required | BPA, IF, PO, DO |
| $500-$1,000 | no competition required | BPA*, PO, DO |
| $1,000-$10,000 | competition required | BPA*, PO, DO |
| $10,000-$25,000 | competition required and purchase must be synopsized in Commerce Business Daily (CBD) | PO, DO |

*Purchasing Branch personnel only

Source: NAVSUP P-560

Figure 2.2 Small Purchase Thresholds

it eliminates paperwork and saves time. The BPA between the vendor and the government allows representatives of the government to place oral or written orders against a preexisting purchase agreement without a formal purchase order. Each vendor who accepts this type of arrangement agrees bilaterally to accept calls from valid government representatives whose names appear on an "authorized caller list" that is published by the local government activity. Accountability and administrative controls are ensured through the use of "call numbers" that the government representative gives to the vendor. Each vendor then summarizes by month and forwards an invoice to the government listing each call received and the amount of the purchase.

There are two important rules that must be adhered to when using the BPA method. First, all purchases for less than $1,000 do not require competition. However, all purchases within the same commodity group must be evenly distributed among all qualified vendors. This fosters the development of multiple sources and builds a strong business base. The second rule pertains to purchases between $1,000 and $10,000. A minimum of three bids must be solicited. This process allows prospective vendors to vie with one another for the award. This is the preferred method and it assures the government of receiving a fair and equitable price for goods and services. [Ref. 5]

To ease the burden on the Supply Department, NPS Departments and tenant activities are permitted to make "calls" for orders up to $500 per buy. Each buyer must identify himself to the vendor and provide the vendor with a valid and unique "call number" which is specifically authorized for that department. The department representative must maintain a log of all purchases made by documenting the following: name of vendor, BPA number, date of call, call number, itemized list of supplies or services furnished, requisition number, quantity, total price, date of required delivery and the caller's name.

Each authorized caller must be approved by the Commanding Officer and have attended a NAVSUP-approved small purchase course. Following this, each authorized individual

will be appointed a contracting officer (with limited authority to $500). For buyers within the Purchasing Branch, calls up to the maximum of $10,000 are authorized providing the rules and regulations for competition are utilized.

There are several advantages to having appointed buyers located within the various NPS departments and tenant commands. First, through judicious delegation of authority to personnel outside the NPS Purchasing Branch, the principle buyers can be relieved of relatively mundane purchases and second the buyers are able to allocate their time and provide better overall customer service. [Ref. 6]

2. Imprest Fund

The Imprest Fund is very similar to a "Petty Cash" fund. It affords the government a simple and economical method for effecting cash purchases not in excess of $500. The fund is maintained by an "Imprest Fund Cashier" who is reimbursed on a revolving basis (usually monthly) or as necessary to replenish the fund.

There are four simple rules that must apply before use of the Imprest Fund is authorized:

1) The purchase transaction does not exceed $500.

2) Use of the fund is considered to be advantageous to the government.

3) The supplies or services are available for delivery within 60 days.

4) The purchase does not require detailed technical specifications that require a technical inspection. Refer to Figure 2.2 for specific dollar limitations.

The Imprest Fund can be used by anyone within the command. The prospective buyer must present a valid requisition document which has been approved by the individual's department head to the Imprest Fund cashier. The cashier will advance the individual the necessary cash from the fund to effect the purchase. The cashier must obtain a signature from that person to hold them accountable to the government for the amount of money issued. At the time of purchase, the vendor will be requested to furnish an invoice or delivery ticket which indicates the vendor's name and address; materials or services supplied; quantity, unit and extended price of each item; and the total price for all items.

The impetus for utilizing an imprest fund is that most small purchasing organizations have found that the cost of processing small dollar value purchases through the purchase branch often far exceeds the value of the item being purchased.

3. Purchase Orders

Essentially, there are two types of purchase orders, the unilateral and the bilateral.

> The unilateral purchase order is an offer by the government to buy certain supplies or services upon specified terms and conditions. The contractor accepts the offer by furnishing the supplies or services or by proceeding with the work to where performance has occurred. [Ref. 5]

The issue of a unilateral Purchase Order by the purchasing activity does not necessarily obligate the contractor to perform. The contractor may reject the order simply by not furnishing the supplies or providing the services requested. The same holds true for the buying office. The contracting officer may withdraw, amend or cancel the offer anytime before acceptance by the contractor. The unilateral Purchase Order is the most widely used because of its simplicity.

Bilateral contracts are different because the contractor must sign the Purchase Order on the reverse indicating acceptance of the government's request for supplies or services. This act makes the contact legally binding on both parties and each party must conform with the terms and conditions of the contract.

A major subset of purchase orders are those that do not have an agreed upon price at the time of issuance by the purchasing office. For example, a request is made for Xerox to repair a copier that is malfunctioning. Initially, no price is agreed upon because the extent of the repairs are unknown. These contractual arrangements are referred to as unpriced purchase orders or undefinitized contractual actions (UCA's) and are utilized to commence necessary work on a project that has an undetermined scope. The rules and regulations governing the use and application of UCA's have recently changed with the signing of the FY 87 Defense

Authorization Act. Commands are limited to ten percent per quarter (expressed as a dollar percentage of the total of all contracting actions issued). If the command exceeds the ten percent, they are prohibited from issuing any unpriced orders during the next quarter. [Ref. 7]

No Purchase Order may exceed $25,000 and all Purchase Orders over $10,000 must be synopsized and placed in the CBD (see Figure 2.2). The objective of advertising in the CBD is to enhance public notification and seek additional sources of supply for competitive reasons. However, with the delay imposed by having to place a synopsis in the CBD there is an additional 15 day increase in the time between CBD publication and final contract award. This extra time is attributed to the requirement that states the solicitation must be released 15 days prior to posting in the CBD.

4. Delivery Orders

The final major category of small purchase method is the delivery order. Delivery orders are not actually a method of small purchase; however, buyers are required to utilized this method because there is an existing contract in place between the vendor and the government. The mandatory General Services Administration (GSA) Federal Supply Schedule Contracts and the Optional GSA Federal Supply Schedule Contracts are generally geared toward meeting the routine needs of shore-based activities. The

advantage of delivery orders is that they allow several purchasing offices to utilize the same contract, and thus take advantage of quantity discounts that they might not qualify for individually. These orders for supplies are placed against contracts commonly referred to as indefinite delivery contracts. There are essentially three types: definite-quantity contracts, requirements contracts, and indefinite-quantity contracts [Ref. 1]. The appropriate choice of these contracts is governed by the amount of information known regarding times of delivery and quantities required. For NPS buyers, award amounts under this method can exceed the $25,000 authority because the contract was previously negotiated through GSA buyers with unlimited purchase authority. Buyers may place orders against one of the different types of schedules up to the maximum order limits specified on the schedule. The items most frequently ordered via this method are micro computers, office furniture and office equipment.

This essentially describes the various small purchase methods available to the NPS buyers. However, there are a number of buys that exceed $25,000 that cannot be made through GSA schedules or any of the other methods discussed previously. These requests must be forwarded to the contracts division at NSC Oakland. The key to successful award of these large buys is the Statement of Work (SOW) or specifications. The documents forwarded to NSC Oakland

must adequately convey sufficient understanding of the requirements necessary for the contractor to prepare estimates and perform the work. They must also provide the basis for interpreting responsibility for work efforts and results pursuant to the contract. The originator of the SOW must not assume that all parties comprehend the work to be performed. Often, the full impact of the specifications or the work to be performed is not fully appreciated until work commences. Therefore, initial documentation must be adequate for solicitation and award purposes. More often than not the award is delayed due to poorly written SOW's and further clarification is warranted.

Furthermore, ambiguities in the written specifications or SOW cause problems during performance. NPS Contract Management personnel have the responsibility for monitoring and administrating the contract once award is made. All too often issues that arise during contract performance could have been avoided by better technical documentation.

## E. NPS SMALL PURCHASE STATISTICS

The supervisor of the Issue Control Branch is responsible for reporting to the Supply Officer the total number of Open Purchase transactions that pass through Issue Control. Over the last two fiscal years that count has remained steady at just over 11,000 requisitions per year for supplies and services (this figure was obtained from

compilation of the monthly 1057 report that is forwarded to NAVSUP). With a monthly average of just over 917 documents, this translates into approximately 213 requisitions per week. The NPS purchasing branch currently has four permanent buyers assigned full-time with one position currently vacant. This means that each buyer must process a minimum of 53 awards per week to maintain pace with the number of requisitions submitted.

The most recent figures from NPS for FY 86 indicate that a weekly average of 180 is attainable. This is determined by multiplying the number of buyers available by the average completion rate per buyer. This translates into approximately 45 awards per buyer. Since the Purchasing Branch is receiving more requisitions than they can currently process a backlog develops. There are several alternative methods that have been or could be utilized in an attempt to process the backlog. These include assigning buyers to overtime, hiring temporary buyers, obtaining purchasing assistance from the supervisor or the procurement clerk, and requesting a temporary moratorium on submission of all requisitions. An evaluation of each of these alternatives is discussed later in the study.

F. NPS PALT

The author has determined through personal interviews and analysis of randomly selected requisitions that approximately 24 hours elapse from the time the requisition

is date stamped by Issue Control and the time it is entered into the Purchasing Branch Supervisor's log. The average time required to complete a transaction based upon data gathered from the Contracting Supervisor's monthly 1057 report to NAVSUP indicates that it took on the average 17 days in FY 86 and 26 days in FY 85 to make the award (data were not available to separate by type of purchase). The goals for PALT which are recommended by NAVSUP are shown in Table 2.1.

TABLE 2.1

NAVSUP RECOMMENDED PALT GOALS

| Procurement Category | Contract Award Target |
|---|---|
| $0-$1,000 | 19 days |
| $1,001-10,000 | 23 days |
| $10,001-25,000 | 40 days |
| Unpriced Orders (NTE) | 21 days |
| Imprest Fund | 3 days |
| Delivery Orders | 8 days |
| BPA calls ($0-1,000) | 16 days |
| ($1,001-10,000) | 18 days |

Table 2.2 lists average days PALT for the last 18 months at NPS. After comparing the monthly totals for PALT from Table 2.2 against the recommended guidelines shown in Table 2.1, it can be shown that NPS has exceeded NAVSUP guidelines on six separate occasions for all requisitions less than $10,000.

TABLE 2.2

NPS MONTHLY PALT AVERAGES

| MONTH | AVG DAYS | % of Requisitions < $10,000 |
|---|---|---|
| Sep 86 | 16 | 90 |
| Aug 86 | 16 | 88 |
| Jul 86 | 11 | 89 |
| Jun 86 | 15 | 91 |
| May 86 | 27* | 89 |
| Apr 86 | 33* | 90 |
| Mar 86 | 20.1 | 87 |
| Feb 86 | 24.6* | 92 |
| Jan 86 | 20.9 | 85 |
| Dec 85 | 17.3 | 65 |
| Nov 85 | 16.1 | 83 |
| Oct 85 | 6.5 | 92 |
| Sep 85 | Not Avail | 87 |
| Aug 85 | 30.4* | 86 |
| Jul 85 | 31.1* | 89 |
| Jun 85 | 29.6* | 91 |
| May 85 | 18.1 | 90 |
| Apr 85 | 21.5 | 88 |

*Indicates NAVSUP goal for PALT not reached

The percentage of requisitions processed for less than $10,000 is critical to the analysis of the command's PALT. However, with 82 percent of all purchases being made via the BPA and Imprest Fund methods, elimination of these two methods from the analysis is required. This is due primarily to the fact that these two methods are the easiest to award and this causes PALT to drop by nearly 30 percent. Based on a random sampling of purchase orders for less than $10,000 the average PALT was calculated at greater than 30 days. This exceeds the NAVSUP recommended goals of 23 days by more than seven days.

During the period April 1986 to September 1986 requisitions between $10,000 and $25,000 were sampled and the average PALT was calculated at 60 days. This is clearly in excess of the NAVSUP recommended goal of 40 days which is shown in Table 2.1. However, of the total number of requisitions received by NPS, those in this category represent less than three percent of the total number of requisitions submitted.

Requisitions for over $25,000 are processed by NSC Oakland and the PALT associated with these requisitions was not available from NPS files. This is due primarily to the fact that NPS purchasing is not authorized to process purchase requests for amounts greater than $25,000. The number of requisitions in this category is less than one percent.

## G. SUMMARY

In this chapter an analysis of the procurement process at NPS was presented to provide the reader with a basic understanding of the two types of funds available for the purchase of supplies and services, the process for obtaining open purchase material or services, and the five different purchase methods used by the NPS Purchasing Branch. Included in the area of purchasing methods was a description of the dollar value thresholds for each purchase method.

In the last part of the chapter data was displayed which indicates just exactly how well the NPS Purchasing Branch is

performing. A discussion of the factors that impact upon PALT is presented in the following chapters and the author will evaluate those elements both internal and external to the organization that affect PALT.

# III. THE ACQUISITION ENVIRONMENT

## A. INTRODUCTION

This chapter focuses on the major pieces of Procurement legislation that have been passed over the last four years. Following the discussion of the different pieces of legislation, an evaluation is made of the overall impact the legislation has had on NPS small purchase procedures. Before continuing, however, it must be mentioned that as each Federal agency receives changes to the procurement regulations, they are responsible for promulgating various internal directives and procedural changes to comply with the new regulations. Combine the multiple changes with the numerous differences existing between Federal agencies and the situation becomes even more confusing and difficult to administer by all concerned.

Over the last four years the Federal Government, and in particular DoD, has received tremendous publicity over the purchase of $400 hammers and $600 ashtrays. Each incident of media sensationalism instigates another round of Congressional inquiries of Federal agencies. [Ref. 8] With the government procurement system under heavy attack, a number of possible alternatives have been implemented. For example, the Fraud, Waste and Abuse Hotline was established in 1982 to provide federal employees with a direct line to

the head of the agency. Through the Hotline, an individual could reveal pricing violations or wasteful practices. However, the problem with this method was the threat to the individual for "whistle blowing." Most individuals have a natural fear of retaliation when calling-in a suspected fraud, waste or abuse situation [Ref. 9].

DoD awards over 15 million contracts each year with a value of over $150 Billion. Even if all purchase transactions were 99.9% error free there would still be 15,000 possible errors. Many of the problems are simply attributed to administrative errors with few actual cases of fraud being detected [Ref. 8:p. 17]. Even so, Congress has generated procurement legislation since 1982 that has had a tremendous impact on the government's method of doing business.

The first item of procurement legislation initiated by Congress since the Armed Services Procurement Reform Act of 1947 and the Federal Property and Administration Services Act of 1949 was The Competition in Contracting Act (CICA) of 1984. Since that date, several other pieces of legislation have been enacted by Congress in an effort to eliminate the number of problems arising from poor procurement practices. These include the Defense Procurement Reform Act of 1984, The Small Business and Federal Procurement Competition Enhancement Act of 1984, and the Defense Procurement Improvement Act of 1985.

B. THE COMPETITION AND CONTRACTING ACT (CICA)

CICA is probably the single most important piece of procurement legislation enacted by Congress in nearly 40 years. CICA is the direct result of the national attention focused on the problems encountered in government procurement [Ref. 8:p. 118]. Over 80% of all federal contract obligations originate from DoD. For this reason the service secretaries and senior military officials have spent many hours before Congress explaining and defending their much publicized procurement actions. One theme that has developed from all of the committee hearings and Senate and House floor debates was that the government needed to push "Competition" [Ref. 8:p. 18].

The impact of CICA upon DoD procurement agencies and the Defense Industrial Complex has not been fully determined; however, one thing is certain, Congress wants the executive branch to seek competitive contracts and thereby reduce the overall costs of procuring DoD weapon systems.

To promote more competition CICA created several new terms to replace terms that previously had non-competitive connotations. The term "sealed bid" was initiated to replace "formal advertising" and "competitive proposal" for the term "negotiation." In addition to the terminology change, there was a change to the procedures to be followed for effecting a sealed bid and a competitive proposal award. For example, sealed bid is the prescribed method for all

purchases over $10,000 if all of the following procedures apply: (1) the specifications and requirements are non-restrictive; (2) time permits solicitation, submission and evaluation of all sealed bids; (3) the award will be made with reasonable promptness on the basis of price and other price-related factors; (4) bids can be evaluated without discussions with the bidders; and (5) there is a reasonable expectation of receiving more than one sealed bid [Ref. 10].

If, however, the above procedures cannot be established by the contracting officer then use of the competitive proposal method is appropriate. The primary reason for using the competitive proposal method is to be able to conduct meaningful discussions with each of the offerors. Following the discussions, the contracting officer will usually call for a best and final offer from each bidder. However, under the competitive proposal procedure, the contracting officer is required to reserve the right to award the contract without discussions if the contracting officer determines that the initial offers are acceptable and would result in the lowest overall cost to the government. [Ref. 8:p. 127]

The problem with the old standard was that it equated the formal advertising method of procurement with competition but did not sufficiently recognize that negotiated procurements could also be competed. CICA, therefore, clearly established a legislative precedent to compete all

awards regardless of which method of procurement was utilized [Ref. 8:p. 120].

CICA also reduced the number of exemptions from seventeen to seven for awarding a contract via the non-competitive method. Government agencies may use this procedure if the procurement falls into one of the following categories found in FAR 6.302:

1) When only one responsible source is available and no alternative type of property or service will satisfy its needs.
2) Under unusual or compelling urgency, when the government would be seriously injured unless the agency limited the number of solicited sources.
3) When restriction of an award to a particular source is required because of:
   (a) the necessity to maintain a particular source to ensure its continued availability in the event of national emergency or to achieve industrial mobilization or
   (b) the award is required in order to establish or maintain an essential engineering research or development capability provided by an educational or other non-profit institution or a federally funded research and development center.
4) When the source is restricted under the terms of an international agreement or treaty or by direction of a foreign government that is reimbursing the executive agency for the cost of the procurement.
5) When the item is a brand name commercial item for authorized resale, or a statute expressly authorizes or requires that the source be restricted.
6) When national security requires that the disclosure of the executive agency's requirement be limited to the particular source(s) from which it solicits the bid or proposal.
7) When the head of the executive agency determines it to be necessary in the public interest to use procedures other than competitive procedures. This exception must be the subject of a written notification to the Congress, thirty days in advance of the award of the contract.

Depending upon the enforcement and interpretation of the exemptions when making an award, the contracting officer must prepare a Justification and Approval (J&A). CICA requires written J&A's for all proposed contracting actions not providing for full and open competition in excess of $25,000. The two principal situations where J&A's are required are: (1) there is only one responsible source for the material or service; or (2) advertisement in the Commerce Business Daily (CBD) is waived due to urgency.

The second element of CICA that ensures the contracting officer is following the rules is the appointment of a competition advocate for each activity with procurement authority. This senior procurement official is appointed by the commanding officer and is responsible for ensuring that full and open competition is maintained, that the exemptions are not inappropriately circumvented, and that all non-competitive procurements are reviewed. By design, Congress established the competition advocate system through CICA to protect against procurement abuses. [Ref. 11]

The third major change affected the bid protest procedures. CICA initiated new bid protest procedures that would allow any bidder legal recourse through the General Accounting Office (GAO) or through the Armed Services Board of Contract Appeals (ASBCA) for ADP protests. Government contract awards that were deemed inappropriate by the vendor could be help up for as much as 45 days while the

adjudicating activity promulgates a decision. This provides the contractor with an opportunity to secure a meaningful and resolute solution to an otherwise difficult situation. The disadvantage is that more and more contract awards are being delayed due to pending litigation. [Ref. 12]

Overall, there are mixed emotions about the impact CICA has had upon the procurement process. Contract awards within DoD under "full and open competition" have risen sharply over the last two years. Statistics show that the Army has increased its percentage of the dollars awarded competitively from 40.2 percent in fiscal year 1982 (FY 82) to 46.9 percent in FY 85. The Navy and the Air Force have nearly doubled the number of dollars spent competitively while the Defense Logistics Agency (DLA) has reached a record level of 96.8 percent of all contracts awarded competitively. [Ref. 9:p. 3] However, according to the 1987 handbook, Management of the United States Government, there has been a substantial increase in the amount of time required for the government to procure supplies and services to operate on a daily basis. To quote from the guide:

> The acquisition process is so complex that product and service users sometimes do not get what they need when they need it. While the time required to process a specific acquisition varies with the procedures used and the type of product or service required, administrative lead-times of 27-37 weeks are not uncommon for competitively negotiated acquisitions in the $25,000-$5 million range. Such long lead-times add to the uncertainty, risk, and expense of contracts and contribute to delay, expense and reduced productivity in agency programs. [Ref. 13]

Additional problems that contribute to the overall inefficiencies that government is currently experiencing is the fact that a majority of the dollars spent are still non-competitive (over 53% in 1985) and the contracting officers responsible for awarding contracts have had their authority eroded due to the increase in the review and approval process [Ref. 13:p. 94].

Of course, with changes to any system there are tradeoffs that must be made. A complete analysis of the increases and/or decreases to the Procurement Administrative Lead Time (PALT) for NPS is conducted following the discussions and analyses of other legislative changes made to the procurement system.

## C. THE DEFENSE PROCUREMENT REFORM ACT OF 1984

Shortly after CICA was enacted, the Defense Procurement Reform Act was passed by Congress. The Act was primarily designed to force DoD agencies into performing advanced planning for their purchase of spare parts and other supplies for Life Cycle Support of major weapon systems. Congress adopted what they believed was a better approach to the procurement of spare parts. Again, the impetus for Congressional action was the much publicized stories of $500 washers and $600 bolts purchased from aircraft manufacturers for spares. The primary recommendations made by the Reform Act were as follows:

(1) Buy standard or commercial parts where appropriate.

(2) Buy in economic quantities. All too often DoD has been guilty of buying one or two at a time when in fact prior planning for all systems would have had them buying multiple quantities for inventory at a cost savings of over 20 percent.

(3) To require in all contracts that the contractor identify the Original Equipment Manufacturer (OEM) of the item. This recommendation would facilitate "breakout" of spares at some future date.

(4) To buy from the OEM rather than from the prime. This effectively cuts out the middleman. This also allows the Service agency that owns the system to compete the parts directly with the OEM and the prime.

(5) To ensure that government personnel are rewarded for achieving cost savings and increasing competition.

(6) To confirm that before a purchase is made that someone verifies that it is not already in inventory or will not be more effectively acquired through another government agency. [Ref. 9:p. 8]

The last major area addressed by the Reform Act was technical data rights. Most of the problems in this area are the result of overzealous implementation of the legislation, with the DoD citing the need to implement the legislation as an excuse to redraft its basic policy regarding acquisition of rights in data. The policy established by the Reform Act was a step in the right direction. However, due to some initial drafting problems, additional revisions to the policy on technical data rights had to be made by the Defense Procurement Improvement Act to correct the Reform Act. [Ref. 9:p. 10]

Overall, the major effect that the Reform Act has had on government procurement is in the area of spares pricing and

analysis [Ref. 9:p. 8]. The Act forces the prime contractor to provide detailed data with respect to components within the system. This allows DoD procurement specialists an opportunity to obtain spares and supplies at a much reduced cost because of breakout procedures [Ref. 9:p. 9]. It also opens up the possibility of competing manufactured items on the open market due to the availability of technical data packages from the prime contractor.

One of the most difficult aspects of the Reform Act to implement was the preferred customer principle. According to the Act, any vendor selling goods and services to the federal government must offer them for the same low price as their best customer may have received including discounts. The reason this was so difficult to enforce is due in part to problems encountered in trying to determine variances for quantity, place of delivery, packaging arrangements and method of payment. Additionally, the statute mandates that if a company charges the government a higher price than was previously charged to a preferred customer then they must file documentation to explain the difference in price or face administrative penalties. [Ref. 9:p. 9]

The Small Business and Federal Competition Enhancement Act (Competition Enhancement Act) is very similar to the provisions established by the Reform Act [Ref. 9:p. 10]. However, there was one major difference and that involved the requirement for establishing a small business breakout

procurement center representative. This position was established to foster competition between the various small-business concerns that were not able to compete for large dollar value contracts under the law.

D. THE DEFENSE PROCUREMENT IMPROVEMENT ACT

The last of the acts to be discussed was initiated by Congress because of a number of scandals that made the headlines concerning cost overruns by major defense contractors. Apparently several large defense contractors had deliberately charged off some questionable expenses to overhead accounts and then proceeded to submit requests for payment to the government. The Improvement Act was initiated to prevent future occurrences by administratively imposing heavy penalties (up to $1 million) for contractors caught willfully violating the statute. The burden was no longer on the government to uncover the false charges during an audit of the contractor's proposal or claim for reimbursement. Furthermore, the Improvement Act provides the contractor with an incentive to review his proposal or improve his accounting procedures. This provides assurances to the Government that no unauthorized costs are charged to the cost pool. However, should a penalty be imposed it would be imposed upon contractors regardless of whether or not they were aware of the perpetrated act. [Ref. 9:p. 10]

Additional changes made by the Improvement Act include: a requirement that the GAO examine the feasibility of a

civilian acquisition agency to replace the current system; authorization for the head of Defense Contract Audit Agency (DCAA) to subpoena contractor records to assist the judiciary in the prosecution of the contractor for fraudulent claims; the establishment of a qualification system for procurement and quality assurance personnel; a provision removing the presumption of reasonableness of contractor incurred costs; a requirement that the DoD report annually on the programs on which it intends to perform "should cost" analyses; a provision establishing fines to be paid by contractors that are overpaid as a result of submitting inaccurate or incomplete cost or pricing data; and a provision that prevents contractors or DoD from employing anyone convicted of fraud or any other felony with regards to a government contract. [Ref. 9:p. 11]

Overall, the Improvement Act was enacted by Congress to further police the acquisition environment. Although it is too soon to tell whether or not the Improvement Act will have a significant impact on the procurement process, Congress during the last two years has sent a number of messages to all Federal agencies and specifically DoD that the American public can no longer afford wasteful and poorly managed Federal acquisitions.

## E. THE EFFECTS OF PROCUREMENT LEGISLATION ON NPS

The four statutes addressed in this chapter were developed by Congress as a direct result of specific

problems that were brought to the attention of the American public [Ref. 9:p. 12]. While it is important for Congress to protect the vested interests of the American taxpayer, it may not be their role to micromanage the process down to the fine print on each contract let by a sanctioned government procurement agent. When problems arise within a particular area of the process, it must be the responsibility of that Federal agency to police their own actions and through internal management resolve the issues and make changes to the system to preclude future occurrences.

The mere process of change, regardless of the wisdom of its purpose, is inherently disruptive. All Federal agencies need time to assimilate the changes brought about by Congress and time for the system to adjust and stabilize. By one count the Federal Acquisition Regulations (FAR) have been amended 14 times since April 1984. The defense supplement to the FAR (DFARs) was amended 11 times in the same period, to say nothing of the numerous amendments to other agency supplements. With over 100 bills currently pending in Congress to make further changes to the acquisition regulations, one can readily see that Federal agencies must prepare for an even more difficult adjustment period. [Ref. 9:p. 13]

With regard to NPS purchasing, the changes initiated by the Reform Act, the Enhancement Act, and the Improvement Act have had little impact on the procurement process. This is

due primarily to the fact that 96% of all NPS procurement actions are under $10,000.

However, changes to the law because of CICA have had the most impact on NPS requisitions between $10,000 and $25,000. The requirement to synopsize the requisition and place it in the CBD is mandatory, but because of the unique requirements for most requisitions in this category, all buys are competitively negotiated. The NPS purchasing branch has never conducted a formal sealed bid opening.

Requisitions received by the Supply Department that are placed in the CBD are awarded through a modified two-step process. Once bidders respond to the synopsis, the contracts specialist selects the bids that are in the competitive range and negotiates with the bidders in cooperation with the requesting department. The vendor that best satisfies the requirement receives the award. This process is difficult to perform and has increased the time for making an award by more than 45 percent. However, less than 3 percent of all requisitions handled by NPS purchasing are between $10,000 and $25,000.

Sole source requisitions that are below $10,000 and do not require synopsizing are handled differently. CICA requires that a competition advocate be appointed to chair the command's sole source board. All requisitions sent to the board must be accompanied by adequate justification from the requesting department. The primary responsibility of

the competition advocate and the sole source board is to promote competition and review all sole source requests. The NPS board meets a minimum of once a week and requisitions that are approved by the board for sole source procurement are forwarded to the buyer for immediate action while others are forwarded to purchasing to be competed. Those requisitions that are rejected by the board must be returned to the requesting department for further clarification. This entire review process adds an average of 10 working days to PALT and has delayed some awards by as much as 30 days.

All other requisitions in excess of $25,000 continue to be forwarded to NSC Oakland and the only major change to these requisitions is the requirement for submission of a J&A when the procurement is to be made under less than full and open competition. The NPS Supply Department has promulgated a memorandum to all departments providing guidance in the proper submission of a J&A. However, interviews conducted at NPS and NSC Oakland have revealed that numerous problems have been encountered with the wording of the command's J&A's when submitted to NSC Oakland. It is beyond the scope of this study to address this problem.

Overall, with less than 4 percent of all requisitions requesting sole source processing, whether procured locally or by NSC Oakland, it appears that the delay of these requisitions is not due to problems generated by the NPS Supply

Department but by the changes to the procurement regulations as prescribed by CICA.

## F. SUMMARY

The NPS purchasing branch personnel have a difficult task of wading through a multitude of regulations to complete a single procurement transaction. However, the success or failure of the branch lies ultimately in the hands of the Supply Officer and his managers. Their analysis and discernment of each new statute and how it affects the process and whether or not they provide adequate instructions and training to the buyers is of vital importance to the school's mission.

## IV. NPS SMALL PURCHASE; A CASE STUDY

### A. OVERVIEW

Chapter IV first looks at the organization that supports the Purchasing Branch. This discussion is followed by an analysis and evaluation of the conditions that surround the physical environment. Issues specifically covered include staffing, training, management and supervision. Finally, specific recommendations for areas of improvement are provided.

To gain a better understanding of the specific areas analyzed during the study requires a look at a motivation-hygiene theory developed by Dr. Frederick Herzberg. The theory is currently taught in the U.S. Navy's Human Resources Management and Instructor Training Courses.

Dr. Herzberg is a professor of psychology and management at the University of Utah. He is internationally recognized as a management consultant and has written many articles and books based upon his research in human behavior. In his book Work and the Nature of Man, Dr. Herzberg studies the subject of job motivation and has observed the needs of man on the job. Traditionally, work has been regarded as an unpleasant necessity. It has generally been thought that people needed to be enticed to work by means of various

rewards, or to force them to work by means of various threats, or both.

Dr. Herzberg maintains that the job itself, if made stimulating, can be a potential motivator. He further states that if the job provides opportunity for personal satisfaction or growth, a powerful new motivating force is introduced. Dr. Herzberg divides the various control factors in the work place into two distinct categories: job motivators and hygiene factors. The job motivators are items such as achievement, recognition, responsibility, challenging work assignments, and advancement. These motivators appeal to the individuals need for self-respect, pride, and growth. Most people strive toward personal growth and development, and these drives are most likely to be actualized in an environment that is both supportive and challenging. [Ref. 14]

Those items in the work place that Dr. Herzberg calls hygiene factors include things like the physical working conditions, supervisory policies, labor-management relations, wages, and fringe benefits. Hygiene is used because these things are preventive actions which remove sources of dissatisfaction when they are addressed. Just as sanitation removes potential threats from the physical environment, the hygiene factors do not provide motivation, they only prevent dissatisfaction.

## B. THE NPS PURCHASING ORGANIZATION

The mission of NPS per SECNAV Instruction 1524.2 is:

> to conduct and direct advanced education of commissioned officers and to provide such other technical and professional instruction as may be prescribed to meet the needs of the Naval Service; and, in support of the foregoing, to foster and encourage a program of research in order to sustain academic excellence.

The role of the Supply Department in supporting this mission is to provide the supplies and services necessary for the school to carry out that mission. The Supply Officer heads up the Supply Department and the job is normally filled by a Supply Corps Lieutenant Commander with two officer assistants assigned. The Supply Officer is delegated purchase authority of $25,000 from the Superintendent who is ultimately responsible for all that transpires within the Supply Department.

The leadership of the Navy holds the Superintendent responsible for the proper operation of the school and the various departments contained therein. Much the same as the Chief Executive Officer (CEO) of a large corporation, the Superintendent is ultimately responsible for the actions of those he commands by virtue of the power and authority vested in his position.

For this reason, the Superintendent must be able to rely on the management skills of his officers as CEO's would their first line managers. Without the officer's full attention to duty and pride of service, the Superintendent may ultimately suffer the consequences.

The Supply Officer in turn has the responsibility to provide the best possible service to the activities he supports. However, he cannot circumvent the rules and regulations that he is bound by law to uphold. What the Supply Officer must do it provide the best possible management support he can within the law to support the command's overall mission.

The chain of command for the NPS Supply Department is shown in Figure 4-1. The Control Division which is managed by a supply corps lieutenant, has a GS-9 Contract Specialist (1102 Series) assigned who is responsible for managing Issue Control, Receipt Control, and the Purchasing Branch. The Lieutenant Division Officer and the GS-9 Contracts Specialist have been delegated contract authority for all requisitions with a dollar value of less than $25,000.

Supply Officer

| Material Division | Control Division | Food Service Division |
|---|---|---|
| Personal property | Issue/Receipt control | EDF |
| Ready Supply Store | Purchasing Branch | |
| Shipping & Receiving | | |
| Freight Branch | | |

Figure 4-1 Supply Department Organization

Purchasing is supervised by a GS-8 (1105 Series) and has the following billets assigned: a GS-7 Purchasing Branch lead buyer and Small and Disadvantaged Business

Representative (SADBUS); four GS-4/5 buyers (1105 Series); and one GS-4T Procurement Clerk (1106 Series).

The number of civil service ceiling points within the Purchase Branch has not changed during the last year. However, during that time, a new DoD Manpower Management Program was initiated by the Civilian Personnel Office (CPO). The program was designed to give Department Heads greater flexibility for hiring temporary employees to assist in filling a critical need. Temporary employees are not authorized the same benefits that permanent employees are nor can they be employed for longer than a year. [Ref. 16]

The method used for determining the number of employees a department can hire and for what length of time is based on a payroll ceiling. As money for salaries becomes available the Department Head, at his discretion, hires employees to assist in critical areas. In the case of the NPS Supply Officer, he is authorized to hire temporary employees to assist the permanent buyers during peak work-load periods providing funds are available in his budget. [Ref. 15]

During the period of this research effort the Superintendent has authorized the Supply Officer to hire two additional buyers on a permanent basis. The problems associated with obtaining qualified buyers from a limited employment market is beyond the scope of this study and is not addressed.

C. THE PHYSICAL ENVIRONMENT

One of the hygiene factors analyzed by Dr. Frederick Herzberg is the work environment. Spacious facilities, work equipment, and office decor may not motivate the worker to produce better results but if allowed to deteriorate can produce negative feelings among workers and a decrease in productivity. During the author's interviews with the buyers, the one response most often noted was the one evaluating the work environment. The buyers agreed that they were not afforded sufficient privacy to conduct their procurement business and there was a limited amount of space available for them to work (approximately 36 square feet per cubicle). According to CPO each buyer should have a minimum of 48 square feet of work space [Ref. 15]. However, midway through the study, additional space was provided to the Purchase Branch and several of the buyers were given larger work areas with more privacy. The amount of work space is still an issue, but there are plans underway to provide additional workspace for the buyers.

Another concern identified by the buyers was the lack of space designated for a training room. A room large enough for conducting conference/discussion training sessions must be established. The room could be shared by all of the different Supply Department Branches and possibly other Departments on a rotating basis and should be set up with a

chalkboard and other training aids to facilitate instructional periods.

A major issue is the telephone equipment available to the Purchasing Branch personnel. Most of the buyer's business is accomplished via the telephone. During the author's review of purchasing activities external to NPS, the author discovered a number of installed telephone systems that were capable of reducing the amount of time buyers spent dialing and recalling their customers. None of the buyers at NPS had a simple touch tone telephone available for their use. Relatively inexpensive equipment, such as touch tone telephones, can reduce the amount of time buyers spend on the telephone. Also, the installation of a separate telephone line for each buyer along with call-forwarding and record-a-call capabilities would allow each buyer to establish individual communication links with the vendors. Such services would prevent the buyers from missing calls while they were on the telephone or away from their desk.

Another potential problem was the lack of a centrally located customer service area. The primary responsibility of the Purchasing Branch is to provide personal service to the requisitioner. Personal interviews of the buyer revealed that they were constantly being inundated with calls and visits from requisitioners throughout the course of the day and this took valuable time away from their job.

These constant interruptions are disruptive to the buyer and must be eliminated. A customer service policy should be established with set hours of operation which are posted and enforced. One possible solution would be to establish two periods during the day when customers are able to seek assistance from the buyers. For example, a one hour morning session from 8 AM to 9 AM and a late afternoon period from 3 PM to 4 PM. This policy encourages customers to meet with the buyers during specific times each day and helps eliminate lost manhours due to interruptions. Of course, high priority requisitions would still be handled on a case by case basis outside of regularly posted hours.

D. STAFFING AND TRAINING

Workload and adequacy of staffing is difficult to project and is basically a manpower function. Nevertheless, a large and growing backlog of requisitions may be an indication that the organization is understaffed, requires additional training, or both.

Personal interviews conducted by the author revealed that the buyers were not receiving adequate on-the-job training or formal classroom training to perform their jobs. When each buyer was asked how often training sessions were held, most could not recall when the last session was given. However, it was noted that all buyers had attended the week-long Defense Small Purchase course within the last four years. This course, which is sponsored by NAVSUP, provides

a detailed study of small purchase procedures and a survey of basic statutes and authorities governing DOD procurement. The fact that all NPS buyers had attended the course was in compliance with NAVSUP directives.

Training is one of the most important areas for the Supply Officer to review. Weekly training sessions must be scheduled and conducted in accordance with the Navy Training Manual. A Master Training Plan must be developed and topics scheduled on a 52 week rotating cycle. The training sessions should last for 45 to 60 minutes per week with a scheduled question and answer period following the presentation. According to Dr. Herzberg, the weekly training sessions facilitate job rotation, promote upward mobility, and foster a sense of pride within the organization [Ref. 16].

The buyers also complained of a lack of feedback and recognition with regard to their job performance. Annually, the buyers are given performance evaluations. None of the buyers interviewed indicated that they had ever received individual counseling or discussion of their annual reviews. Also, there were several cases where workers had not received special recognition for promotions or awards. One of the precepts of successful management is gaining the loyalty and support of your employees [Ref. 17]. The basic motivators or job satisfiers that promote a positive force in the workplace as described in Dr. Herzberg's theory of

motivational behavior on the job are: (1) recognition; (2) responsibility; (3) rewards and advancement (external process); (4) achievement; (5) personal growth (internal process); and (6) challenging work [Ref. 16:p. 73]. If any of these elements are missing from the work environment then problems may arise which decrease productivity and result in backlogs.

As was previously mentioned, the Supply Officer has been authorized to hire two additional buyers. Obtaining the buyers should take some of the pressure off of the current buyers but it also places greater emphasis on the training program. A well-developed and meaningful training program will pay big dividends in the long run.

## E. INTERNAL MANAGEMENT AND SUPERVISION

The procurement process can become extremely complex as shown by the sweeping changes made by Congress each year. Therefore, it is essential that Standard Operating Procedures (SOP's) and/or supplemental flow charts be provided to the buyers to disclose unnecessary steps, areas for simplification, the basic work flow, and expected work standards. In addition to supporting experienced buyers, the SOP's and flow charts can be used to assist in the training of new personnel.

Most organizations establish objectives that support any number of goals. According to William F. Glueck, a further breakdown of the objectives provides the organization with a

set of policies and these can be further clarified by procedures and rules. A procedure or rule is a specific direction to action. It is used to tell the employees or the supervisor how to perform a specific function. The intent of the process is to design clear lines of authority and develop specific operating procedures (SOP's). The end result will be a more efficient and effective operation. [Ref. 17]

Interviews conducted by the author with the individual buyers concluded that there were no published SOP's or internal procedures manual to reference when making contract awards. Each buyer had to rely upon their experience and training. If this is allowed to continue within an organization, each buyer begins to make decisions that are counterproductive to organizational goals. Therefore, the supervisor must be responsible for providing the employees with management's goals and objectives for solving the problem. Only in this manner can management be assured that each purchase transaction is handled in accordance with acceptable operating procedures. Likewise, as procedures change, the changes can be reflected in revised SOP's and addressed during the weekly training sessions.

Another important element of successful internal management is the development of a priority system that establishes well-defined goals. The supervisor must direct the team towards realistic and achievable daily, weekly and

monthly goals. The goals must be designed to foster competition, increase productivity, decrease backlogs, and/or promote personal growth and awareness among individual team members.

Many of the buyers interviewed indicated that individual productivity goals were never encouraged and that a reporting system for identifying the number of requisitions to be processed by each buyer has not been established. This lack of direction on the part of supervisory and management personnel manifests poor coordination and control. Supervisors must be held accountable for the efficiency of the organization.

Additionally, team members must be knowledgeable in the methods for processing various priorities and the expected time standard for each completed action. To monitor these requirements each buyer must count up the number of requisitions on their desk at the end of each day and arrange them by priority and by length of time they have had the requisition for action. This draws supervisory attention to overaged requisitions and provides immediate visibility for backlogs and awards that require some form of expediting. NSC Oakland's Small Purchase Division requires that all buyers turn in an "aged report" to their supervisor on a daily basis. The report breaks down all requisitions on each buyer's desk into the following matrix:

| | UNDER $1,000 | $1,000-$10,000 | $10,000-$25,000 |
|---|---|---|---|
| 0-20 days | | | |
| 21-30 days | | | |
| 31-45 days | | | |
| 46-60 days | | | |
| 61-90 days | | | |
| OVER 90 days | | | |

This allows management to react to problems and precludes excessive delays which could ultimately drive PALT above established NAVSUP goals.

F. EXTERNAL MANAGEMENT

Every member of the buying team needs to feel like they are contributing to the success of the organization and without their individual efforts the job would not be accomplished in a timely manner. In order for this to occur, management must provide employees with recognition, advancement, and challenging assignments that foster personal growth. Whenever an employee performs in an outstanding manner, management must make every effort to publicly recognize those efforts. Personal awards should be presented often and in front of the individual's peers. This helps develop self-esteem and allows the individual to be recognized for efforts on the job.

Another important element of management relations is maintaining open lines of communication. From the highest

echelon to the lowest level, people must be informed. This is a matter of management visibility and the routing of internal memos that provide employees with direction and information about current trends. One of the more popular methods currently used by corporate executives and military commanders is Management by Walking Around (MBWA). This approach has proven quite successful and provides management with visual feedback as to how the organization is operating. This has not been the case at the NPS Purchasing Branch. The buyers have told the author that management has not shown a genuine interest in their welfare. A number of opportunities have been available for management to show public recognition to individual buyers yet nothing has been done. Neglect by management can have a significant impact on morale per Dr. Herzberg's theory of motivation.

Other examples of poor management are found in the supervisor's failure to keep the buyers informed. Recently, when the backlog of requisitions reached unsatisfactory proportions, the buyers were not apprised of the problem. The buyers were asked to work overtime to reduce the number of requisitions outstanding without ample justification. The extra pay for performing overtime is acceptable but according to Dr. Herzberg, the supervisor can obtain much better results by informing the buyers of the problem and appealing to their sense of pride in the organization.

All of the items covered in this section are important for developing a solid team-oriented organization. Teamwork further promotes camaraderie among workers and this creates job satisfaction. Management must be willing to pay attention to the areas known as job motivators and hygiene factors and know how each affects the individual. The Supply Officer at NPS has at his disposal the means to affect nearly all of these factors. However, paying particular attention to Dr. Herzberg's job motivators will provide tremendous dividends over the long run.

## G. SUMMARY

In this chapter, the organization surrounding the Supply Department's Purchase Branch was discussed followed by an analysis of the various factors that affect the operations of the branch. Factors like physical environment, staffing, training, supervision, and management were evaluated. These factors along with the difficulty of obtaining qualified buyers to fill open billets contributes to the overall delay in obtaining the supplies and services required to support the mission of the school.

It is management's responsibility to make every effort to solve the problems addressed in this chapter. If management fails in this endeavor, then the programs administered at NPS will continue in their current state or fail.

# V. ADP PROCUREMENT MODELS AND INITIATIVES

## A. INTRODUCTION

The purpose of this chapter is to review several of the current movements underway to automate the Federal procurement system. In addition to the discussion of these initiatives, an analysis and comparison of automated purchasing systems is made between the private sector and the government. The comparison is limited to small purchase applications. During the last portion of this chapter, several pieces of legislation that are currently before Congress are examined. If passed, these new statutes would significantly change the rules governing small purchase procedures in the Federal government. The effect the new laws would have on NPS Purchasing is discussed.

Large business computers have been around for a number of years. However, one area in business and government that is just now receiving attention, which is due in part to the large influx of micro computers, is the field of procurement. The primary reason that the procurement area has not advanced as rapidly as the other functional areas within business is that procurement requires a large number of qualitative and quantitative decision making processes. This places tremendous pressure on the buyer's organization to provide correct feedback. The end result is a reluctance

by government and business to fully automate the process. However, some progress has been made in this area and several examples are discussed here. [Ref. 8:p. 180]

## B. AUTOMATION OF PROCUREMENT AND ACCOUNTING DATA ENTRY (APADE) SYSTEM

The Navy Field Contracting System (NFCS) is responsible for supporting all of the Naval Regional Contracting Centers (NRCC's), Contracting Departments of Navy Supply Centers and all other satellite activities that perform purchase and contract functions. In an effort to reduce the amount of time required to produce the necessary paperwork for operation of the NFCS, a new standardized automated data processing procurement system, known as APADE, was developed for the Navy to facilitate the management of the acquisition process. The system provides for document control, buyer support services, automated document preparation, information storage and retrieval, automated interface capabilities and a wide range of current and accurate management information. [Ref. 18]

The APADE system is gradually being implemented in five phases throughout the NFCS so that purchasing activities do not experience a backlog. However, one of the major problems encountered with implementation of the system thus far has been the impact on the buyers. Research has shown that employees are skeptical of how computers operate and whether or not their job is secure. To help eliminate

operator/computer interface problems from occurring during computer assisted operations, the buyers are taught only the basics for the primary function areas in phase one. Eventually, each activity will receive the remaining functions during follow-on phases. [Refs 18:p. 2]

To accomplish the many different steps required to make small purchase awards, the designers of APADE created seven functional areas and each of these areas are broken down into subsystems. Buyers are provided access only to the functional areas they require for their work. However, each buyer is able to interface the other subsystems to retrieve stored data on a need to know basis only [Ref. 18:p. 2]. The seven subsystems by implementation phase(s) are as follows:

| | SUBSYSTEM | PHASE(S) |
|---|---|---|
| (1) | Requisition Input/Update Processing | 1/2/3 |
| (2) | Pre-Award Processing | 2/3/4/5 |
| (3) | Award Processing | 1 4/5 |
| (4) | Contract Management Processing | 3/4/5 |
| (5) | Inquiry Processing | 1/2/3/4/5 |
| (6) | Report Processing | 1/2/3/4/5 |
| (7) | System Management Processing | 1/2/3/4/5 |

Each APADE subsystem is user friendly. The specifics of how each subsystem functions is summarized below: [Ref. 18:p. 2]

Requisition Input/Update Processing--The process begins when a requisition is received by the purchase section. The request is entered manually into an APADE terminal. During the requisition update process the buyer may review, add to, modify, or delete requisition data in the system.

Pre-Award Processing--In this subsystem the buyer begins the actual processing of the purchase request by performing a manual review of the requirements. Entry of data into the system by either the buyer or data input clerks enable the buyer to refer data, plan a course of action, prepare pre-award documents and formal/informal solicitations or process changes to solicitations. This subsystem also allows the buyer to maintain accurate bidders lists for supplies and services being procured.

Award Processing--This subsystem functions to allow the buyer to record award information, produce the contract award documents and supporting documentation needed to execute a contract award.

Contract Management Processing--All information entered into the first three subsystems remain available within this subsystem to facilitate the Contract Management function. During this process the system (1) accepts information on performance and/or payments including the establishment of contract close out dates, (2) prepares and/or records modifications, (3) issues or records responses to referrals, (4) provides contract monitoring, and (5) produces all required documentation.

Inquiry Processing--Because APADE is a realtime system, users must be able to access stored information. Access is provided to all work in process and support files for several reasons: (1) accurate status information is immediately available for the customer, (2) operational decisions can be made by contract administration personnel and buyers based upon system inquiries, and (3) supervisors can plan work and assign resources based upon information contained in the inquiry subsystem.

Report Processing--This subsystem allows for the preparation of internal and external reports required by higher authority to monitor and manage the operation. Each implementing activity will maintain their internal reports, but all external reports will be generated and produced in hard copy and transmitted to NAVSUP using telecommunications equipment. The report generator feature allows the activity to design either one-time or repetitive reports. This capability allows management to closely monitor all phases of the purchasing operation.

System Management Processing--There are three separate functions that make up this subsystem. The first is File Maintenance Subsystem which allows the user the ability to update files in the data base (subject to file security restrictions). Second is the Help Dictionary which provides an on-line Data Requirements Document (RD) to the user and lastly Computer Assisted Instruction which provides new system users with instructions for learning how to use the APADE system.

This brief overview of the APADE system is designed to give the reader an appreciation for the type of automated procurement system that will become available for Navy procurement centers over the next ten years. However, during the process of converting from a strictly manual system with multiple references and various qualitative and quantitative decision making functions to a system that automates decision making processes, the implementation teams must be careful to monitor the training and development process. This initial effort will provide big dividends for installation of a sophisticated network like APADE.

## C. NPS COMPUTER SYSTEMS RESOURCES: AN ALTERNATIVE

The Management Information System (MIS) presently in place in the NPS Purchasing Branch is a manual system. The data base consists of Purchase Order Files which are manually created and maintained. Input processing and output of information are performed as manual operations. The only automated data processing equipment used in the branch is the A.B. Dick Magna SL word processor and this piece of equipment is used solely for document preparation.

Each NPS buyer has responsibility for between 300 and 400 open purchase actions at any one time. Consequently, buyers have very little time available for answering questions regarding requisition status. To obtain status, each requisition must be manually researched and, without an automated tracking system, this can be an arduous task.

There have been a number of recommendations to automate portions of the purchasing branch operation. Automation would ease the burden of obtaining status and monitoring requisitions. The recommendations were limited to replacing the manual system by installing a stand alone microcomputer network. With proper planning and implementation, a locally developed system could resolve the NPS problem associated with retrieving, tracking, and processing simple status requests. [Ref. 19]

During fiscal year 86, the Superintendent authorized the Supply Officer to procure a mini-computer to solve purchasing's automation problem. Eight stand-alone desk top mini-computers were purchased. However, the system had no interface capability between buyers and was not able to build a ready reference data base which could provide current status for outstanding requisitions. Consequently, the system was never installed for use by purchasing branch personnel.

The NPS Management Information Systems (MIS) group has resources available for developing software to accomplish

this task. However, before any software could be developed, a well-conceived acquisition strategy is required. The plan must start with an outline of the minimum requirements needed to satisfy the mission statement. Identification of the right system to automate the basic procurement function is the most important step and requires detailed planning.

Once a system has been chosen and installation completed, the MIS contingent could be given the necessary resources and tasked with the initial development of the system software. The use and application of currently available computer technology and off-the-shelf software packages would be encouraged.

There are numerous variables involved with developing, programming and implementing a small purchase software system. The Chairman of the Administrative Science Department in agreement with the Supply Officer should plan to contract-out the system management function after initial development. There are software management firms available locally that could be awarded a contract to assist in developing future upgrades to the system and in providing on-site technical assistance.

## D. THE PRIVATE SECTOR: AN AUTOMATED PROCUREMENT MODEL

The defense industrial base operates under a completely different set of incentives than the Federal Government. The profit motive encourages industry to streamline their operations so they can remain competitive. In order to

accomplish this, major defense contractors have initiated internal programs which seek to reduce costs associated with overhead accounts and general and administrative expenses. The key to their success is a sophisticated realtime computer system. [Ref. 8:p. 180]

As an example, ARGOSystems, Inc. first opened its doors in September 1969. Since that time ARGOSystems has achieved an overall annual growth rate of better than 30 percent. Sales for 1986 reached nearly $70 million which was up from $20.8 million five years earlier. The tremendous success of ARGOSystems, which specializes in advanced electronics technologies, is attributed to innovative leadership that is constantly seeking ways to improve the operation.

In 1977 ARGOSystems updated their computer operation by installing a Hewlett-Packard (HP) 3000 computer system. The system was designed to orchestrate the complex financial and management functions associated with operating a rapidly growing corporation. At that time, the purchasing branch began utilizing an automatic Purchasing Management System. The system which operates on the HP-3000 contains a total of 43 separate programs that provide buyers and management with access to a multitude of reports and purchase functions.

The Purchasing Department for ARGOSystems is currently managed by a 16 year veteran of the firm, Ms. Barbara Moore, who coordinates the efforts of 20 individual buyers. In 1986, the Purchasing Branch expended over $27.5 million in

purchasing dollars in support of the $70 million in company sales. This amounted to over 47,500 individual line items with the number of line items per buyer per quarter averaging better than 733. In terms of purchase orders, each buyer awarded an average of 268 per quarter. This equates to approximately 21 purchase orders per week. The average procurement administrative lead time (PALT) for ARGOSystems in the first quarter of fiscal year 87 amounted to just over 9.3 days per award. All awards were made via the Purchasing Management System on the HP-3000.

In view of the number of purchase orders processed by ARGOSystems each year, the automated purchasing system must be responsive to management's needs. Annually, Ms. Moore is responsible for developing cost reduction milestones for her department. Subsequently, she reports the department's progress to upper level management on a monthly basis. The MIS segment of the ARGOSystem's automated purchase system is flexible enough to provide her with these reports.

ARGOSystem's Purchasing Management System provides the manager with reports that evaluate and compare the progress of each buyer, each cost center, or the entire division against established goals and milestones. This is accomplished by querying the various data files and allowing the computer to compile the statistics.

Additionally, the system provides users outside the purchasing department with access to the purchase division's

data base. By allowing other divisions an opportunity to query the master purchase files, the buyers are relieved of mundane data queries for purchase status. This option allows the buyers to concentrate on making contract awards and seeking competitive prices from ARGOSystems vendors.

With profit the motivating force, defense contractors are finding more cost effective methods of handling routine purchase transactions. Another advanced method for accomplishing multiple buys of standard stock material which is currently in use at ARGOSystems is screening material requests through the Hamilton-Avnet System. Buys for items such as fasteners, nuts, and bolts are placed with the Hamilton-Avnet representative located on the premises and the telecommunication network automatically locates the item from among the many suppliers who have subscribed to the net. The award is made to the supplier with the best price, the right quantity and best delivery date.

Many of the system being used today in private industry could easily be adapted for use in the public sector. All that is required is a commitment by government procurement officials to obtaining the most cost effective, efficient, and responsive system available that satisfies a predetermined requirement.

## E. INITIATIVES FOR STREAMLINING

There are a number of initiatives currently before Congress that are designed to reduce the restrictions on

small purchase procedures. However, one initiative that does not require Congressional action is the increase to the Imprest Fund ceiling for cash transactions. In early 1986, the Office of Federal Procurement Policy (OFPP) successfully established a new threshold under the Department of the Treasury regulations for the use of Imprest Funds [Ref. 13:p. 101]. Effective 1 July 1986, all federal agencies that administer Imprest Funds can procure supplies and services up to a limit of $500 per transaction.

Originating in the administration's proposal for a Uniform Federal Procurement System, this initiative was first recommended by an inter-agency task group in its report on simplifying small purchases. The higher ceiling was designed to take advantage of the ease with which this method of purchase can be processed.

The change which is reflected in Subsection 13.404 of the FAR reduces administrative costs, PALT, and streamlines small purchase procedures. Another key factor for raising the ceiling is that operational commands currently use Imprest Funds as their primary method of open purchase. This is the result of a NAVSUP recommendation that requires all open purchase transactions be made by NSC pierside purchasing agents. The previous Imprest Fund limit of $150 per purchase ($300 for emergencies) was unrealistic by today's standards.

F. SMALL PURCHASE CHANGES

The Federal Government in 1985 spent an estimated $190 billion in procurement of goods and services involving more than 21 million procurement actions [Ref. 13:p. 83]. Of this amount more than 90 percent was for actions under $25,000. These "small purchases" comprise a major portion of the needs of operational commands and are of vital importance to the overall readiness of the operating forces. With the requirement for goods and services being repetitive in nature, small purchase procurement procedures are designed to avoid expensive administrative costs and long procurement administrative lead times. Therefore, one of the bills currently before Congress is the "Small Purchase Reservation and Commerce Business Daily Procurement Notice Act." This bill seeks to promote greater competition in the small business sector of our economy. The primary focus of this piece of legislation is on awards that would normally fall between $10,000 and $25,000. The bill would remove the requirement for placing a solicitation in the CBD for all purchases up through $25,000. Likewise, the ceiling for reservation of small purchases for small business concerns would be increased from $10,000 to $25,000.

The underlying goal of this proposed legislation is to simplify the process. But more importantly the bill broadens the competitive base among small business concerns by authorizing small businesses exclusive rights to all

purchases less than $25,000. However, the long term goal is to reduce the government's procurement costs.

Another bill that has been requested by the administration, calls for enactment of the "Simplified Competitive Acquisition Technique Act" (SCAT). This particular piece of legislation is controversial in that it seeks to reduce PALT on all purchases between $25,000 and $5 million from the current average of 219 days to an estimated 85 days [Ref. 13:p. 83]. To accomplish this, a more simplified procedure has been proposed. A separate section of the CBD would be established to publicize SCAT procurement actions. The intention is to shorten the procurement process through publishing specific lead times that must be met. The number of administrative reviews and approvals currently in effect would be reduced. This new procedure calls for the appointment of a single contracting authority with the qualifications to make the selection. Proposals received from interested contractors would be limited in their length and awards would be evaluated by the best value to the government judged against limited evaluation factors.

SCAT was initially developed to correct three basic problems associated with the present acquisition process. First, acquisitions take too long. All transactions that fall between $25,000 and $5 million take on the average of 27-37 weeks before awards are made [Ref. 13:p. 94]. Such long lead-times often add to the uncertainty of the project,

increase risk to the government, cost more administratively, and contribute to delay expenses. Every day the government takes to make the award the greater the ultimate cost.

Second, better than 53% of all acquisitions were noncompetitive in 1984. Noncompetitive acquisitions are generally faster and easier to award but cost the government about 25 percent more money. [Ref. 13:p. 94] Time is usually the critical factor for making the award. Because of this, the tradeoff is generally a higher cost. If the award must be made in less time than the 27-37 weeks norm, the award will more than likely be made on a sole source basis. If the noncompetitive awards can be reduced by 25 percent with the introduction of adequate competition and a more streamlined process than SCAT will significantly reduce government procurement costs.

The third basic problem with the system is the fragmentation of the contracting officer's authority and responsibility. Over the years, contracting officers have lost authority and responsibility due to additional reviews and higher approval levels. To a large extent, micromanagement of the system is responsible for the erosion. To return contracting officers to their previous level of authority, SCAT proposes an increase to the productivity of agency acquisition officers by providing them with more efficient methods of issuing contracts and fewer levels of intervention. Overall, use of SCAT procedures is designed to reduce

the administrative effort and cost of acquisitions by more than 50 percent when compared to traditional competitively negotiated acquisitions. [Ref. 13:p. 95]

The actual effort and cost reduction resulting from SCAT is yet to be experienced but it is certain that SCAT will definitely change the current method of doing business. Advocates of SCAT state that there are additional rules that must be considered. For example, removing the competition advocate from the process would eliminate one of the review levels and provide a more streamlined approach. Additionally, creating more simplified evaluation criteria eliminates the requirement for conducting meaningful discussions with contractors within the competitive range.

There are additional changes that may need to be made if SCAT is to have the intended impact for its backers. However, those changes are beyond the scope of this study and are not addressed.

## G. SUMMARY

Chapter V discussed several current perspectives on automation of the procurement process. The most promising system reviewed was APADE, however, installation of this system in the near future is unlikely. Consequently, NPS must rely on a locally developed system during the interim. Changes must be made to the current method of operation in order for NPS to provide for an efficient and responsive purchasing system. With regard to the initiatives discussed

during the chapter, the NPS Small Purchase Branch stands to benefit.

The "Small Purchase Reservation and Commerce Business Daily Procurement Notice Act" will have a definite impact on the small purchase process at NPS. Even though only three percent of all NPS transactions are over $10,000, lifting the requirement for releasing the solicitation 15 days prior to placement in the CBD, followed by 30 days in the CBD can reduce the PALT for this category of purchase. This bill would also reduce the amount of administrative time required by management and supervisory personnel for drafting solicitations and proposals.

For SCAT, it remains to be seen whether or not it will actually be enacted by Congress. Assuming some version of the legislation becomes law, SCAT will have a definite impact on the procurement process at NPS. Currently, all requisitions over $25,000 must be carefully synopsized and a J&A attached for sole source awards. The entire package is then forwarded to NSC Oakland for further processing. With the enactment of SCAT, the small number of requisitions in this category (less than one percent) would experience a decrease in the amount of time required for making the award and will help expedite the process.

Of the initiatives discussed in this chapter the only one that would not significantly impact on the purchasing process is the one raising the Imprest Fund ceiling to $500.

Use of BPA's is still the preferred method because it only requires a telephone call to initiate. With the Imprest Fund there is always the possibility that funds may be lost.

## VI. SUMMARY OF ANSWERS TO RESEARCH QUESTIONS

### A. OVERVIEW

Answers to the questions proposed in Chapter I are the subject of this chapter. The primary research question was developed to provide the reader with an objective for the study. To support that objective six subsidiary research questions were presented.

During the period of the study (May 1986 to October 1986), the author obtained data from interviews, statistical sampling, and numerous readings. All of the information obtained from the above resources was accumulated, analyzed, and tabulated. The results of this effort provide the impetus for the following answers. In this chapter, the subsidiary questions will be addressed first followed by a brief summary on the primary research question.

### B. QUESTIONS AND ANSWERS

Question #1. What are the different types of open purchase transactions being processed by the NPS Purchasing Branch and how do they affect PALT? Can these transactions be processed differently for increased efficiency?

The majority of all purchases awarded by the NPS Purchase Branch are under $1,000 (81.2%) and require little effort on the part of the buyer to seek competition. These buys are usually made within 2 to 3 days by telephone.

Approximately 15 percent of all open purchase requisitions fall in the range between $1,000 and $10,000. These requisitions require a minimum of three bids and average between 15 and 20 days to make an award. The requisitions that range between $10,000 and $25,000 require a synopsis and must be placed in the CBD for a minimum of 30 days before an award can be made. For the majority of the requisitions in this category, PALT consistently exceeds NAVSUP goals. This is due in part to the unique nature of requisitions originating from NPS. Many cite sole source justification because they are for research projects and only one source is available. By law these requisitions are required to be placed in the CBD. Requisitions in excess of $25,000 amount to less than one percent of the total and are forwarded to NSC Oakland for action. For requisitions in this category, the Supply Officer can only maintain current status and continue to query NSC Oakland's files.

In answer to the question, "Can these transactions be processed differently for increased efficiency?" the response must be in the affirmative. There are many techniques available to the Supply Officer to increase efficiency. Implementation of the recommendations provided in Chapter IV of this study would be a move in the right direction. By establishing parameters for change and continually monitoring progress against those parameters,

the Supply Officer can achieve results that exceed the current effort.

Question #2. Do NPS customers experience different Procurement Administrative Lead Times on their requisitions? How does the priority assigned on the requisitions affect PALT?

All requisitions received by the NPS Purchasing Branch are processed on a first come and first serve basis. no preferential treatment is shown by department. However, because of the nature and difficulty of some buys, a problem does exist. If the requisition is particularly difficult then one of two buyers will be assigned the requisition for action based upon their training and experience. This method of operation tends to create a backlog for the more complex buys. If there was a better distribution of the workload among buyers these problems could be eliminated.

To answer the second half of the question, there are only two priorities used at NPS in accordance with the FAD assigned for shore commands. Priority 10 requisitions are always given preference over priority 15 requisitions.

Question #3. What has been the effect of changes to DOD procurement regulations on PALT over the past two years?

Overall, NPS and the other small purchase activities examined during this study have experienced an increase in PALT for all open purchase transactions over $1,000. The primary reason for this has not necessarily been the change

in the laws as much as the increased awareness on the part of buyers. Buyers are more conscious of generating competition. This requires greater attention to pricing data. Buyers are also more fearful of making a mistake and are more carefully researching the buy before making the award. This is partially attributed to the media exposure of fraud, waste, and abuse cases which has cost some government employees their jobs.

Question #4. What are some of the possible solutions for reducing PALT which would provide a more responsive and efficient procurement system at NPS?

The primary solution is the implementation of a training program. It must be designed to cross-train NPS buyers in all of the various purchase methods available. This would help distribute the workload and decrease the PALT for complex buys. A secondary problem is the lack of office automation equipment. Buyers are required to process all requisitions manually, and this consumes a great deal of time. Installation of even a simplified star network for the six buyers in-house would greatly facilitate the development of a data base and reduce research efforts for similar buys. The system would also enable management to calculate individual buyer workloads and identify potential problem areas.

Other facets of a more responsive and efficient system include expanded work spaces with more privacy, an updated

telephone system, and development of a customer service policy that provides meaningful liaison between the buyer and the customer.

Question #5. How can the procurement process at NPS be improved to reduce PALT?

The process for reducing PALT at NPS will depend upon the methods and techniques that management decides to implement based on this study. There are obvious trade-offs that must be considered when taking any corrective action. For example, implementation of a dedicated training program requires an initial loss of labor hours which would normally be dedicated to making contract awards. However, the benefits associated with the program appear to far outweigh the costs in manhours. All buyers become better trained and management will realize a better distribution of the work-load and subsequent reduction in backlogs.

Overall, this study reveals that some form of action must be taken to reduce PALT and the ultimate responsibility lies with management. Status quo to this point has proven ineffective in dealing with the large backlogs and shorter lead times.

## C. SUMMARY

The answers to the questions provided in this chapter are the result of an extensive research effort which was established through numerous interviews and statistical samplings. The subsidiary research questions were developed

to assist in answering the primary research question. As each subsidiary question was analyzed, evaluated, and discussed during the course of this study, the importance of the subsidiary question to the primary research question was documented. In the final analysis, PALT at NPS is not considered excessive when evaluating the level of effort expended by the staff. However, in the opinion of this author there are numerous changes that must be made to better utilize the available workforce and increase the efficiency of the operation. In the next chapter, the specific conclusions and recommendations resulting from this study are presented.

## VII. CONCLUSIONS AND RECOMMENDATIONS

### A. OVERVIEW

In the business world, corporate management will often hire professional consultants to observe their company's operation. The end result is a report to management with recommendations for improving or streamlining various segments of the company's work flow. If these recommendations are implemented, the company often can expect to realize increased output efficiency and cost effectiveness. The obvious advantage of this method is that it provides management with unbiased opinions by a third party. However, in the final analysis, management is responsible for implementing recommendations and determining their effectiveness.

A similar situation exists regarding the conclusions and recommendations offered by this study. Initially, this study was requested by corporate management, the NPS Superintendent, during a time when the Supply Department was encountering problems managing their ever increasing backlog of requisitions. A third party was requested to analyze and evaluate the operation of the Purchase Branch. The subsequent conclusions and recommendations that follow are offered to management in an effort to provide a reference point from which to start. The author has provide Supply

Department personnel with meaningful suggestions for increasing their effectiveness. Whether or not these recommendations are effective will depend upon the vigor and support they are given when and if they are implemented.

B. CONCLUSIONS

1. PALT for the Naval Postgraduate School Purchase Branch is acceptable when evaluating all of the factors that impact on the procurement process. An analysis of the PALT for each type of buy, the value of the transaction and the time required for making the award reveals that a majority of the NPS buys fall within the acceptable range as prescribed by NAVSUP. However, when calculating the average PALT for all requisitions that fall between $1,000 and $10,000, NPS has exceeded NAVSUP established goals three times in the past 12 months. For transactions that fall between $10,000 and $25,000 NPS PALT consistently exceeds NAVSUP goals by an average of 20 days.

For the three months that NPS exceeded NAVSUP goals for buys between $1,000 and $10,000 the average amounted to over five days per month. In this particular case, PALT can be reduced by proper management to acceptable NAVSUP levels, however, for transactions between $10,000 and $25,000 the additional 20 days is indicative of a much more serious problem. Legislative changes to the procurement regulations by Congress over the past three years have had a major impact on PALT for all small purchase activities.

2. The working conditions within the purchasing branch have a negative impact on buyer productivity. Buyers are assigned to a desk surrounded by standard four by eight partitions. Because of their close proximity, relatively little privacy is afforded the buyers to conduct telephone conversations or personal interviews with vendors and customers. This aspect contributes to a tremendous loss of concentration when buyers on either side of a partition are simultaneously conducting their business. Additionally, all of the telephones located in purchasing are dial operated and do not have any of the special options installed like call-forwarding or record-a-call which can be found on most commercial telephone systems.

3. Significant weaknesses exist in the NPS Purchase Branch with regard to a buyer training program. Buyers were unanimous in their agreement that training was not regularly scheduled or conducted. This fact impacts on the ability of the buyers to make awards. Currently buyers are specialized and only make specific type awards.

The segregation of the different buying methods is not conducive to efficient use and development of buyers. With the segregation of buying duties, several buyers are generally overloaded with the more difficult awards while others are tasked with relatively simple buys that do not require as much effort. Furthermore, this distribution of the workload creates morale problems and an inexperienced

work force. The end result is a 500 to 600 requisition backlog.

4. The NPS Purchasing Branch has not established or posted a well defined Customer Service Policy. There has been an increased emphasis on providing NPS and tenant command customers with more efficient service. Establishment of a Customer Service Policy that is goal oriented and outlines the maximum number of days for each type award is mandated by NAVSUP policy. This policy is designed to assure each customer that they will receive the best possible support from the purchasing activity. Additionally, buyers must be taught the importance of a proper service-oriented attitude. The importance of service cannot be over emphasized as supervisors are required to comment on the individual buyers attitude in their annual performance evaluation.

5. Congressional action over the last three years has placed an additional burden on NPS buyers to compete all awards above $1,000 which has resulted in an increase to PALT. This across the board increase is due to the additional requirement that buyers must obtain and document a minimum of three bids for every purchase transaction over $1,000. Also the requirement to synopsize all transactions over $10,000 and place them in the CBD has added a significant amount of time for making the award. The increase to

PALT is common to all small purchase activities throughout the NFCS.

6. Management and supervisory personnel have generally failed to provide the leadership and support required to satisfactorily govern the NPS Small Purchase Branch. Management has failed to provide a suitable training program. Consequently, NPS buyers have not been consistent in obtaining PALT goals as established by NAVSUP. Management is responsible for providing goals for each category of buy and must maintain programs for monitoring these goals. In general, effective feedback mechanisms are not in place to enable the buyers to evaluate and improve their performance by comparison to established goals. Supervisory personnel are also responsible for providing positive reinforcement and recognition to buyers for outstanding work efforts related to goal achievement. This is not the case at NPS.

7. The NPS Purchase Branch is seriously lacking some form of automated data processing capability to control the flow of purchase requests and distribution of the workload. All purchase requests are manually entered into the supervisor's purchase log and then distributed to the various buyers. Difficulty is often encountered while attempting to track down the specific buyer with the responsibility for making the award. In addition to the problem with work flow, there is no system, manual or automated, currently

available to record historical data for buyers. This presents a major problem for buyers who are required to make similar buys at a later date. The buyers must rely on previous experience or ask other buyers for information they may have recorded and saved.

C. RECOMMENDATIONS

1. Develop and implement a meaningful training program that will provide each buyer with the skills they require to make more complex contract awards. Include in this training program a method for each buyer to achieve a modicum of success in making complex awards. This will enable the buyers to become better qualified for more challenging assignments and responsibilities. The supervisor should also be responsible for providing buyers with summaries of the latest legislation and regulations applicable to small purchase activities during training sessions. Specific examples of how each change affects their local procedures should be demonstrated. This should also be followed up with a change to the activities SOP's for reference.

The training must be scheduled for a minimum of one hour per week and each buyer must have an opportunity to present a topic that relates to a problem associated with the work environment (i.e., making awards to small and disadvantaged businesses). Then supervisors must document each buyer's progress and the lessons they have received.

The benefits to be derived from implementation of an effective and comprehensive training program for NPS buyers is invaluable when one compares the amount of time required to implement the program versus the rewards gained by having a knowledgeable and experienced work force. The potential benefits far outweigh the costs in time allocated.

Management will find that PALT will be reduced as a result of a more knowledgeable and better trained work force and that morale will improve as each buyer gains more confidence in their ability to make the more difficult buys.

2. Develop an internal system that is used to measure the effectiveness of each buyer versus established PALT goals as mandated by NAVSUP. Through the training program, buyers should be advised of the minimum acceptable times for making each type of award. By establishing a weekly buyer's report similar to the report used by NSC Oakland, the supervisor can quickly identify potential problems and take appropriate action. This will preclude NPS buyers from making an award that exceeds established goals and provides for better customer service. This system can also be utilized to establish a formal recognition program for rewarding buyers and supervisors for superior on-the-job performance.

3. Obtain an automated data processing system to reduce the administrative workload of the buyer and to allow supervisory personnel and possibly the requisitioner with the

ability to monitor the current status of purchase orders. There are a number of solutions to this problem, however, they all involve obtaining some form of ADP equipment. Whether management decides to utilize existing equipment already available or leases equipment with more flexibility for handling the work flow, some action must be taken to provide the buyers with an automated system.

The Administrative Sciences Department at NPS is capable of developing software for the Purchase Branch that will satisfy most immediate demands. By tapping this valuable resource both parties can benefit from the product. Also, a historical data base for all open purchase transactions could easily be built and referenced and this would greatly reduce the buyers' workload with regard to research efforts.

All of the above-mentioned alternatives are offered as an interim measure until APADE is installed at NPS. APADE will eventually replace all procurement systems used throughout the NFCS and standardize the procurement process. However, until APADE arrives some automated method of reducing the administrative burden placed on the buyers is required.

4. Develop a comprehensive Customer Service Policy that is realistic and meaningful. The first step toward accomplishing this recommendation is to identify a suitable area for use as a waiting room or customer service lounge. Once an area has been designated, establish and post specific

hours for customers to converse directly with the buyers or an appointed representative. By establishing two separate periods during the day, one early and the other late, a controlled contact point is provided for buyers and their customers. The supervisor must ensure that a representative of the buying organization is in place during prescribed times. Information available from the customer service counter would include current status on requisitions in process, guidance on detailed specifications required by the buyer to make the award, and advice on how to submit complex purchase requests requiring J&A's or a synopsis. This effort will help alleviate the confusion that often accompanies requests for non-standard material.

5. Ensure that programs are implemented by supervisory personnel that recognize outstanding job performance. All buyers assigned to the branch must be aware that their efforts and superior performance are recognized. A program to publicly reward each buyer for innovative ideas or cost savings to the government because of competition must be in place. Management will find that this effort fosters increased motivation and job satisfaction and will also promote camaraderie among the buyers.

6. Take steps to correct the deficiencies noted by this study in the work environment and establish a POA&M for monitoring the progress of the remaining recommendations. The buyers need to know that the job they perform is vital

to the accomplishment of the school's mission. By taking corrective action on the working conditions noted in the study, management will gain tremendous support from the buyers in increased productivity. Installation of a new telephone system with recommended options will allow greater freedom of movement and relieve an area of frustration for many of the buyers. Also, by providing the workers with additional work space and more privacy the dividends obtained will far exceed the initial investment.

In the final analysis, management must make every effort to implement the recommended changes from this study and develop a program that periodically reviews the progress being made and follows-up with corrections based upon known results.

## D. AREAS FOR FURTHER RESEARCH

Research conducted for this study has revealed the following areas for further analysis and action:

1. Performance of a Cost Benefit Analysis for the type of computer system that should be utilized as an interim measure at NPS until APADE arrives.

2. An examination of the costs and benefits of taking a commercialized purchase system similar to the one used by the ARGOSystems Purchase Department or another system off the shelf and converting it to government use.

3. An examination of the feasibility of exempting NPS from posting open purchase transactions $25,000 and below in the CBD due to the unique nature of these requisitions.

## APPENDIX A

## LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| ADP | Automated Data Processing |
| APADE | Automation of Procurement and Accounting data Entry System |
| BPA | Blanket Purchase Agreement |
| CBD | Commerce Business Daily |
| CICA | Competition in Contracting Act |
| CMR | Contract Management Review |
| DAR | Defense Acquisition Regulation |
| DFAR | Defense Supplement to Federal Acquisition Regulation |
| DD Form | Department of Defense Form |
| DLA | Defense Logistics Agency |
| DLI | Defense Language Institute |
| DLSIE | Defense Logistics Information Exchange |
| DO | Delivery Order |
| DOD | Department of Defense |
| DON | Department of the Navy |
| FAD | Force Activity Designator |
| FAR | Federal Acquisition Regulations |
| FPI | Federal Prison Industries |
| FSS | Federal Supply Schedule |
| GAO | General Accounting Office |
| GS | Government Service |

| | |
|---|---|
| GSA | General Services Administration |
| GSBCA | General Services Board of Contract Appeals |
| IDA | Integrated Disbursing and Accounting System |
| IF | Imprest Fund |
| J&A | Justification and Approval |
| MIS | Management Information System |
| NAS | Naval Air Station |
| NAVSUP | Naval Supply Systems Command |
| NFCS | Navy Field Contracting System |
| NPS | Naval Postgraduate School |
| NSC | Naval Supply Center |
| O&M,N | Operations and Maintenance, Navy |
| OEM | Original Equipment Manufacturer |
| OFPP | Office of Federal Procurement Policy |
| OPTAR | Operating Target |
| PALT | Procurement Administrative Lead Time |
| PO | Purchase Order |
| POA&M | Plan of Action and Milestones |
| RSS | Ready Supply Store |
| SADBUS | Small and Disadvantaged Business Representative |
| SCAT | Simplified Competitive Acquisition Technique |
| SECNAV | Secretary of the Navy |
| SF | Standard Form |
| SOP | Standard Operating Procedure |
| SOW | Statement of Work |

| | |
|---|---|
| UMMIPS | Uniform Material Movement and Issue System |
| UND | Urgency of Need Designator |

## APPENDIX B

## INTERVIEW QUESTIONS

The following questions were asked during interviews conducted during the course of the research.

A. General questions concerning the Purchasing Branch

1. Overall, do you feel that you have been provided with sufficient goals to operate by and if so do you perceive that they are realistic?

2. Do you feel that the rules and regulations you are expected to operate under are well defined and sound as provided by the organization?

3. Do you feel that the supervisory personnel have sufficient skills and time to manage your workload in a proper manner?

4. Do you feel that the direction provided by established rules and your supervisors are consistent with current Navy policy?

5. Do you feel that you possess the educational background to perform your job?

6. Is the Navy providing you with enough On-the-Job and formal training to do your job?

7. Are the facilities (i.e., space, equipment, computer support and clerical assistance) adequate for you to do your job?

8. Do you feel that you have sufficient time to perform your job?

9. What is the primary reason for turnover among fellow workers?

10. Do you feel that performance evaluations are fair and adequately judge your abilities to do the job?

11. Does your supervisor give you daily updates on the amount of the small purchase backlog and what must be done

to eliminate the problem? Are you provided with realistic accomplishment goals?

B. Questions concerning PALT

1. What are the primary reasons for delay of your requisitions that contribute to the overall PALT?

2. If there was one recommendation that you could make to reduce or streamline the workload what would that be?

C. Questions on the individuals status

1. How long have you served in the capacity as a buyer?

2. What is your educational background?

3. What are the possibilities for your advancement?

4. Do you have a career plan that you are following?

## APPENDIX C

## LIST OF INTERVIEWS

Bordalo, Z., GS-11, Small Purchase Supervisor, Naval Supply Center, Oakland, California, 3 September 1986 (Personal).

Couchman, E., GS-11, Small Purchase Supervisor, Naval Supply Center, Oakland, California, 3 September 1986 (Personal).

Carver, S., Lt, Student, Naval Postgraduate School, Monterey, California, 15 June 1986 (Personal).

Dubay, K., Lt, Information Resource Manager/ADP Officer, Naval Postgraduate School, Monterey, California, 1 August 1986 (Personal).

Garza, M., GS-9, Control Division Supervisor, Supply Department, Naval Postgraduate School, Monterey, California, 18 July 1986 (Personal).

Grassi, J., Lcdr, Management and Review Officer, Naval Postgraduate School, Monterey, California, 1 August 1986 (Personal).

Hausvik, D., GS-4T, ADP/Clerical Specialist, Supply Department, Naval Postgraduate School, Monterey, California, 11 July 1986 (Personal).

Inouye, C., Lcdr, Supply Officer, Naval Postgraduate School, Monterey, California, 7 July 1986 (Personal).

Kasun, W., Lt, Control Division Officer, Supply Department, Naval Postgraduate School, Monterey, California, 1 August 1986 (Personal).

Lynch, R., GS-4T, Procurement Clerk, Supply Department, Naval Postgraduate School, Monterey, California, 18 July 1986 (Personal).

Menyweather, G., GS-11, Small Purchase Supervisor, Naval Supply Center, Oakland, California, 3 September 1986 (Personal).

Moore, B., Director of Purchasing, ARGOSystems, Inc., Sunnyvale, California, 4 November 1986 (Personal).

Moore, K., GS-9, Controller Supervisor, Naval Postgraduate School, Monterey, California, 18 July 1986 (Personal).

Nix, S., GS-7, Small Purchase Buyer/SADBUS, Supply Department, Naval Postgraduate School, Monterey, California, 11 July 1986 (Personal).

Reed, C., GS-5, Small Purchase Buyer, Supply Department, Naval Postgraduate School, Monterey, California, 11 July 1986 (Personal).

Risse, J., GS-8, Purchasing Branch Supervisor, Supply Department, Naval Postgraduate School, Monterey, California, 11 July 1986 (Personal).

Roberts, P., GS-6, Supervisor of Contracts, Naval Air Station, Moffett Field, 3 September 1986 (Personal).

Rogers, H., GS-6, Small Purchase Buyer, Supply Department, Naval Postgraduate School, Monterey, California, 11 July 1986 (Personal).

Sueur, R., Lcdr, Director of Small Purchase, Naval Supply Center, Oakland, California, 3 September 1986 (Personal).

Wagner, W., Research Administration, Naval Postgraduate School, Monterey, California, 25 July 1986 (Personal).

Ward, V., Research Administration, Naval Postgraduate School, Monterey, California, 25 July 1986 (Personal).

White, G., GS-5, Small Purchase Buyer, Supply Department, Naval Postgraduate School, Monterey, California, 11 July 1986 (Personal).

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